BEFORE THE TENNESSEE REGULATORY AUTHORITY AT NASHVILLE, TENNESSEE

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IN RE:

PETITION OF TENNESSEE-AMERICAN WATER COMPANY FOR APPROVAL OF CHANGE IN RATES AND CHARGES

DOCKET NO. 04-00288

EXHIBITS
OF STEVE N. BROWN

December 23, 2004

RWE CEO PRESENTED THIS CHART TO SHAREHOLDERS SHOWING THE REQUIRED ROR FOR WATER SUPPLY OPERATIONS

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SOURCE. RWE CEO's SPEECH APRIL 2004

			Fig. 1.	RWE
	Value Management 🗵			
		ROCE in %	Capital costs in %	
	RWE Power	16.5	10.5	
	RWE Energy	16.5	10.0	
	RWE Innogy RWE Trading	9.4	10.0	
cludes Tennessee- merican Water	RWE Thames Water	6.5	8.0	► The Same Return In
	RWE Unwelt	5.2	10.0	Mr Miller's Testimon
	'Core businesses'	11.3	9.3	
	Heidelberg RWE.group	-1,0 - 10.4	14.0	

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RWE's value management: Goal-oriented control of all the Group's divisions

Key figures for value management	Operating Operating	在有时间的	には、日本のようですが、これをは、日本の日本の日本の日本の日本の日本の日本の日本の日本の日本の日本の日本の日本の日	The second second second second
in fiscal 2003	result a passets	i icosts	s value ⇒% value ∴ Ladded Jadded in	**************************************
			CONTRACTOR OF THE PERSON OF TH	2002.
RWEPower	1 682 10176	165 1610	60 614	450
RWE(Energy)	12409	-16 5 TO-C	Dec [6:5] (805	1407.461
RWEInnogy	714 7 7559	9'4	2 (142	2 (2 (1 9 0)
RWESTrading - 25% 1	59,4214,238		.60	E. C. 1988
RWETTIAMES WATER	1 374 221-076	6.5	2 5 312	52.03
Iotal core business	5 951 52 687		20	2695
Heidelberger Drückmaschinen	31 3 244	- 10 14 (486	2.457.2255
PHOCHTTEF/other/Group:Genter/consolidation	1970		214	¥ 532,416 b
RWE Group	53,961	. 10.4	701	395

Increasing shareholder value hes at the heart of our strategy Additional value is created when the return on capital employed (ROCE) exceeds capital costs: ROCE reflects the pure operating return of; a company or business area. It is the product of dividing the operating result by operating

We calculate our cost of capital gas a weighted average costs of equity, and external capital requit capital responses to the market's company-specific expectation of returns when investing in a secretary state of a property of the share over and above that of a risk-free investment. External capital costs are linked to longterm financing conditions in the RWE Group and allow interest on external capital to be classified as it as deductible (tax shield)

NWe calculate the Group's cost of outside capital by lapplying a pre-tax cost rate of 6:0%. The cost of equity capital is derived on the basis of an interest rate of 5:5% which is customary for as insk free investment plus risk charges specific to the division of the croup. We do not derive the relationship between equity and external capital from the amounts carried on the balance shee but assume a ratio of 30:70 instead In 2003, the RWE Group's cost of capital was thus 9:0% Defore taxes, as compared to 9-5% in 2002 Relative value added is the difference between RO tand capital cost. Multiplying this figure by the operating assets results in the absolute value of added, which we employ as a central management benchmark? The higher the value added the more attractive a particular activity is for our portfolio at it is the most important criterion for evaluating capital expenditure.

value! added is also our yardstick for determining bonus payments for RWE Group executives. Beginning in 2004, we will also take free cash flow into account in determining the variable com ponent of compens

Includes - £59 million in value added by RWE Dea's downstream

AWR IS RWE'S LEAST PROFITABLE GROUP: BUT RWE HAS UNSOUND POLICY -RAISING DIVIDENDS AS EARNINGS FALL

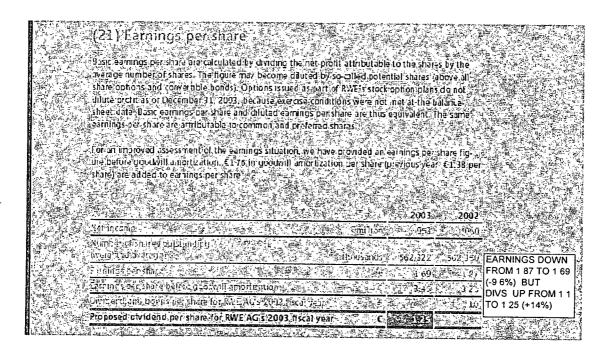
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SOURCE SPEECH BY RWE CEO APRIL 2004

MEANWHILE AMERICAN WATER AND ALL OF ITS SUBSIDIARIES' VALUE ADDED LAG WELL BEHIND THE REST OF RWE

	RV Contributions by ompanies at the Latest by 2006	P Æ
Czech gas business RWE Innogy RWE:Thames Water (incl: American Wat		ealized
American Weter IN JAN 2003 RWE ACQUIRES AM WATER, WHICH AT THE TIME HAD AN ROR OF 6%	Goal, Recover capital costs by 2005 Value contribution Break-even RWE THAN ROR 6 5%	IES I

MEANWHILE RWE'S EARNINGS PER SHARE DECLINE BUT DIVIDENDS GO UP



RWE WILL RAISE DIVIDENDS 15% ANNUALLY FOR 3 YEARS RWE'S POLICY CREATES HUGE NEED FOR CASH INFLOW

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SOURCE: RWE ANNUAL LETTER TO SHAREHOLDERS FEB. 2004

GROWTH IN DIVIDENDS RATEPAYERS ARE BEING CALLED ON TO SUPPORT EXTREME DESPITE AMERICAN WATER'S SO-CALLED PERFORMANCE, ITS

up on the previous year's closing price and ranked among Europe's strongest utility delivered a more satisfying performance. RWE common shares closed the year 27% our promise to keep paying one of the best dividends among companies listed in How has RWE's recent performance benefited you as shareholders? We have kept shares in the second half of the year. tive dividend performance in our sector of industry. In addition, our share price also dividend every year by an average of 15% for fiscal 2004 to 2006. This is an attracdividend for fiscal 2003 be increased by 14%. Furthermore, we intend to grow the the DAX. We will propose to the April 15, 2004 Annual General Meeting that the

EXPENSES CLAIMED BY TENNESSEE-AMERICAN MEANWHILE, CONSUMER ADVOCATE WITNESS IN THIS RATE CASE TERRY BUCKNER DISPUTES \$1 MILLION OF

RWE WILL RAISE DIVIDENDS 15% ANNUALLY FOR 3 YEARS: RWE'S POLICY CREATES HUGE NEED FOR CASH INFLOW

SOURCE: RWE ANNUAL LETTER TO SHAREHOLDERS FEB. 2004

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RATEPAYERS ARE BEING CALLED ON TO SUPPORT EXTREME GROWTH IN DIVIDENDS

up on the previous year's closing price and ranked among Europe's strongest utility delivered a more satisfying performance. RWE common shares closed the year 27 %shares in the second half of the year. tive dividend performance in our sector of industry. In addition, our share price also dividend every year by an average of 15% for fiscal 2004 to 2006. This is an attracdividend for fiscal 2003 be increased by 14 %. Furthermore, we intend to grow the the DAX. We will propose to the April 15, 2004 Annual General Meeting that the our promise to keep paying one of the best dividends among companies listed in How has RWE's recent performance benefited you as shareholders? We have kept

MEANWHILE, CONSUMER ADVOCATE WITNESS EXPENSES CLAIMED BY TENNESSEE-AMERICAN TERRY BUCKNER DISPUTES \$1 MILLION OF

RWE PAID A SUBSTANTIAL PREMIUM FOR AMERICAN WATER WORKS

Source American Water Works SEC Form DEFM14A Filed 2001-12-05

AMERICAN WATER WORKS COMPANY, INC. 1025 Laurel Oak Road

Voorhees, New Jersey 08043

Dear Fellow Stockholder

As you may know, on September 16, 2001, we entered into a merger agreement with RWE Aktiengesclischaft and Thannes Water Aqua Holdings GmbH, which is RWE's holding company for its global water business, to merge with a subsidiary of RWE and become a wholly owned indirect subsidiary of RWE as special meeting of stockholders of American Water Works will be held on Thursday, January 17, 2002 at 9 30 a m local time, to consider a proposal to adopt the merger agreement so that the merger can occur The meeting will be held at the Pennsylvania Convention Center, West Concourse, 12th and Arch Streets, Philadelphia, Pennsylvania Notice of the special meeting is enclosed

Upon completion of the merger, you will be entitled to receive \$46.00 in cash for each share of common stock that you own. This price represents a 37.2% **Dremium** over the average closing price per

share over the 30 trading days prior to September 10, 2001, and a 29 5% **Premium** over the highest closing share price our stock ever obtained prior to the public announcement of the merger agreement. The receipt of cash in exchange for your shares of common stock in the merger will constitute a laxable transaction for U.S. federal income tax purposes.

This proxy statement gives you detailed information about the special meeting and the merger and much merger and the merger agreement as Annex A. We encourage you to read the proxy statement and the merger agreement carefully

Our board of directors has, by a unanimous vote, approved the merger agreement and determined that the merger agreement and the merger are fair to and in the best interests of American Water Works and our stockholders in connection with its evaluation of the merger, the board of directors considered a number of factors, including the written opinion of Goldman, Sachs & Co., delivered on September 16, 2001 to the board of directors to the effect that, based upon and subject to the matters set forth in that opinion, as of September 16, 2001, the \$46.00 in cash per share to be

Source. American Water Works SEC Form PRE14A Filed 2001-11-09

Upon completion of the merger, J James Barr, our President and Chief Executive Officer and a member of our board of directors, will become President and Chief Executive Officer of RWE's combined water operations in North and South America and be elected a director of Thames Water Plc. In addition, upon completion of the merger, Marilyn Ware, chairman of our board of directors, will be elected a member of the Thames International Advisory Council

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Source: American Water Works SEC Form 8K Filed 2002-05-08

approval process. Those four questions are: and our responses - would be the central focus of the regulatory review and continues to guide us experience with and deep respect for the economic regulatory process We knew, early on, that four significant questions

- How will this transaction impact rates?
- Will our support of the communities we serve change?
- Will our historic commitment to water quality and service change?
- How will the associates of American Water be affected by the acquisition?

questions. For example . . . All logical and important questions to be addressed the related testimony, RWE/Thames and American Water address each of these And in each petition and

consistently -- that it will not seek to recover the purchase price premium in pe lower over the long term because of RWE's access to the capital market fact, there is every prospect that the ultimate price to the consumer will

In response to the first question, RWE has clearly stated -- strongly and

Source: American Water Works SE© Form PRE14A Filed 2001-10-02

hat is a critical resource in this capital-intensive business.

will be four key factors that will be discussed intensely during the 3) A commitment to the people of American Water. o Barr believes there company; 2) A continued commitment to customers and communities served; he would seriously consider discussing a sale: 1) The full value of the o Barr said there were three key factors that had to be answered before

to them? "I believe we can answer those concerns relatively easy," said 3) Communities involvement-customer service; 4) People - what happens regulatory process: 1) Foreign ownership; 2) Barr. "I can assure you there will not be a rate increase associated Premium recovery;

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DR. VANDER WEIDE EQUATES THE WATER BUSINESS WITH THE GAS BUSINESS

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van generatara katabar I	
Location In Dr.	
Vander Weide's	
Direct	
Testimony	
	In contrast, as
	19 discussed above, the water companies, are generally followed by only
	20 one or two analysts, and there are relatively few companies with
	21 consistent data extending back for a reasonably long study period.
Page 29	
	7 Q 44 .Are water companies widely followed by analysts in the investment
	8. community?
	9 A .44 No As a result of their small size and low investor turnover, the water
	杨孝也是是是不不知识的政治,但不可以有知识,并因为他的政治,并被"解解"的
	10 companies are generally followed by very few analysts. The number of
Page:23	
	4. Q 48 What companies were eliminated from your water company proxy
	5 group by your selection criteria?
	8 A 48 Connecticut Water Services, Middlesex, and SJW Corp. were eliminated
	7 from my proxy group because they have no analysts' forecasts of long-
	8 term growth. No water companies were eliminated because of other
Page 25	selection criteria.
	10 Q 55 Do you have any empirical evidence that the LDCs in your proxy
	11 group are a reasonable proxy for TAWC?
	12 A 55 Yes The average Value Line Safety Rank for my proxy group of LDCs is
	13 slightly less than 2, on a scale where 1 is the most safe and 5 is the least
	14 safe, whereas the water companies have an average Value Line Safety
Page 27	15 Rank of approximately 3
	THEREFORE, DR. VANDER WEIDE INCLUDES ONLY 5
	WATER COMPANIES IN HIS ANALYSIS
	TENNESSEE-AMERICAN WATER COMPANY SCHEDULE A
	SUMMARY OF DISCOUNTED CASH FLOW ANALYSIS FOR PROXY WATER COMPANY COMPANIES
	Value Line Ave
	Value Line Ave Forecasted //B/E/S EPS //BB/E/S & Value Cost of
	Line No. Company Dividend Price Growth Growth Line Equity 1 American States Water 0 221: 23 752 9 5% 3 0% 6 3% 10 6%
	2 Aqua America 0 120 20 653 95% 90% 93% 12 0% 0 120 20 653
	다. 23 California Water 0 283 28 437 11 0% 4 0%, 7.5% 12 2% 등 20 20 20 20 20 20 20 20 20 20 20 20 20
Page 44	3 California Water 0 283 28 437 11 0% 4 0% 7.5% 12 2% 4 Southwest Water 0 048 13 545 8 0% 8 0% 9 6% 5 York Water Company 0 145 20 058 7 0% 7 0% 10 2%
Page 44	4 Southwest Water 0 048 13 545 80% 80% 96%

DR. VANDER WEIDE ALSO EQUATES KENTUCKY WITH TENNESSEE

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DR. VANDER WEIDE'S TESTIMONY PAGE 10

Water utilities such as TAWC also face the risk of h make major capital expenditures to replace aging facilit expand facilities to meet the water needs of a growing por in Tennessee, the uncertain investment costs associal building the facilities to assure reliable supplies of v especially acute. TAWC has already spent considerable explore the possibility of building a water pipeline to be whatever alternative is selected to solve the water of problem in the Lexington area is likely to require a major inv by TAWC. This investment will strain the Company's resources		
expand facilities to meet the water needs of a growing por in Tennessee, the uncertain investment costs associal building the facilities to assure reliable supplies of v especially acute. TAWC has already spent considerable explore the possibility of building a water pipeline to La Whatever alternative is selected to solve the water of problem in the Lexington area is likely to require a major inv by TAWC. This investment will strain the Company's resources	aving to	3 Wat
in Tennessee, the uncertain investment costs associated building the facilities to assure reliable supplies of a supplied of a s	ies and	4 make majo
building the facilities to assure reliable supplies of a especially acute. TAWC has already spent considerable explore the possibility of building a water pipeline to Law Whatever alternative is selected to solve the water approblem in the Lexington area is likely to require a major investment will strain the Company's resources	ouletson	s expand fac
especially acute. TAWC has already spent considerable explore the possibility of building a water pipeline to Li Whatever alternative is selected to solve the water selected problem in the Lexington area is likely to require a major inv by TAWC. This investment will strain the Company's resources	ed with	6 in Tennes
explore the possibility of building a water pipeline to Lo Whatever alternative is selected to solve the water s problem in the Lexington area is likely to require a major inv by TAWC. This investment will strain the Company's resources	vater is	7 building th
20 Whatever alternative is selected to solve the water statement in the Lexington area is likely to require a major investment will strain the Company's resources	sums to	8 especially
problem in the Lexington area is likely to require a major inv problem in the Lexington area	xusville.	g explore the
by TAWC. This investment will strain the Company's resources	hortage 🔯	0 Whatever
23 resources	estment 🗒	s problem in
	financial	2 by TAWC.
Cition in Kontuctor		3 resources
Cities in Kentucky		
-10-		

DESPITE DR. VANDER WEIDE'S OPINION, AMPLE INFORMATION ON WATER COMPANIES IS HELD BY THE SEC

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		T	Ī	I			
u.s. securitie	s and Exchange Commission						
		<u> </u>	·				
	SIC 4941 - Water Supply view company filings.	- 	 	 	 		
	http://www.sec.gov/cgi-bin/browse-edgar		 		 		
ems 1 - 39	Titto nama see qovregi-bii ibi owse-edgar	 	 				
	Company	State of Incorporation	Stock Currently Traded In U S Exchanges?	Any SEC Files Used By CAPD?	Number of Files Available OnLine From the SEC	Files Date Back To	Primary Business
	YORK WATER CO	PA	YES	YES	109	1994/02/10	Water Supply
	AQUA AMERICA INC	PA	YES	YES	174	1994/03/08	
	CONNECTICUT WATER SERVICE INC / CT	CT	YES	YES	102	1994/03/15	Water Supply
	MIDDLESEX WATER CO	NJ	YES	YES	107	1995/02/06	
	SOUTHWEST WATER CO	CA	YES	YES	124	1995/02/14	Water Supply
	BIRMINGHAM UTILITIES INC	CT	YES	YES	65	1995/05/11	Water Supply
	ARTESIAN RESOURCES CORP	DE	YES	YES	96	1996/05/03	
	PENNICHUCK CORP	NH	YES	YES	113	1996/05/10	
	CONSOLIDATED WATER CO LTD	E9	YES	YES	72	1997/02/13	
	CALIFORNIA WATER SERVICE GROUP	CA	YES	YES	71	1997/03/06	Water Supply
	SJW CORP	CA	YES	YES	83	1994/03/01	Water Supply
<u></u>	AMERICAN STATES WATER CO	CA	YES	YES	85	1998/03/10	Water Supply
	CALIFORNIA WATER SERVICE CO	CA	A Subsidiary	1			
	BIW LTD	CT	A Subsidiary				
	VIVENDI UNIVERSAL	10	YES	NO	Tolocom &	Entertainme	ent Conglomerate
	CONSUMERS WATER CO	ME	NO	NO	Telecom a	Littertainine	ent Conglomerate
·	ELIZABETHTOWN WATER CO /NJ/	NJ	NO	NO	<u> </u>		
	AQUARION CO	CT	NO	NO	 		
· · · · · · · · · · · · · · · · · · ·	HOLIDAY GULF HOMES INC	FL	·NO	NO	 		
	SOUTHERN CALIFORNIA WATER CO	CA	NO	NO	 		
	AMERICAN WATER WORKS CO INC	NJ	NO	NO			
 	UNITED WATER RESOURCES INC	NJ	NO	NO			
	ETOWN CORP	NJ					,
	IWC RESOURCES CORP	īN	NO	NO	-		
	DOMINGUEZ SERVICES CORP	CA	NO	NO NO			
			NO	NO_	<u> </u>		
	SWARTWOUT ROBERT L	NM 	NO	NO			
	QUINN MICHAEL O	CA	NO	NO			
	TEKULVE THOMAS C	<u>CA</u> .	NO	NO			
	AZURIX CORP	TX	NO	NO			
	CAPACITIVE DEIONIZATION TECHNOLOGY SYSTEMS INC	<u>TX</u>	NO	NO			
	GALLARDA MAURICE W	<u>CA</u>	NO	NO			
	AMERICAN WATER CAPITAL CORP	<u>NJ</u>	NO	NO			
	AQUA DYNE INC	CA	NO	NO		;	
	BULLION RIVER GOLD CORP		NO NO	NO			
	COMPANHIA DE SANEAMENTO DO PARANA SANEPAR	<u>A1</u>					
	COMPANHIA DE SANEAMENTO BASICO DO ESTADO DE SAO PAULO-SABESP	<u>D5</u>	NO NO	NO NO			
	GEMMILL ELIZABETH H	NJ	NO	NO			
	KELLEHER DANIEL L	NJ	NO	NO			
	FARNHAM SHELLEY A	CA	NO	NO			

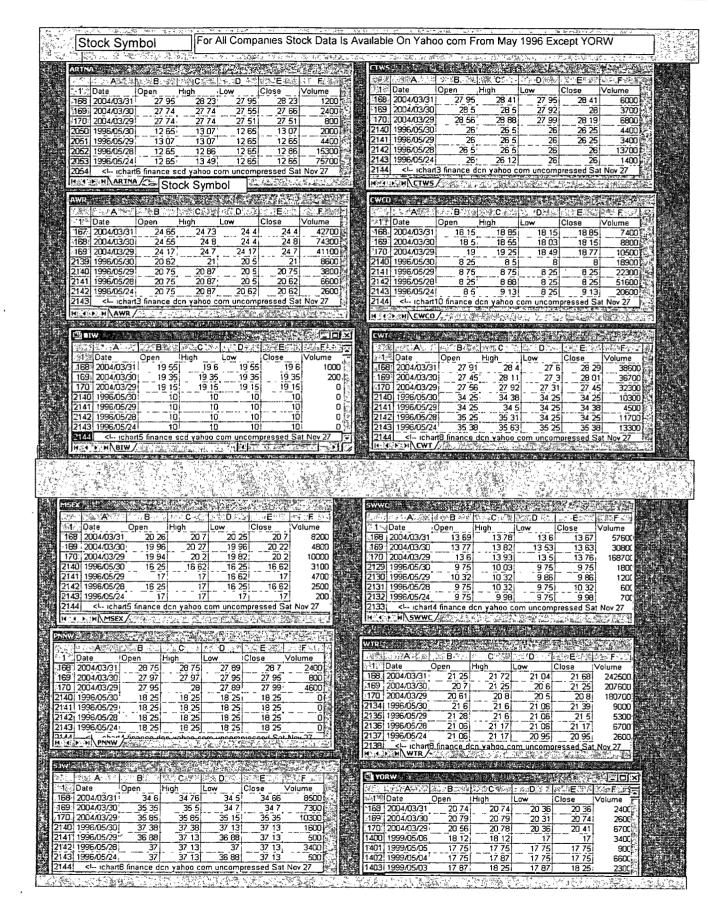
COMPANIES USED BY DR VANDER WEIDE, AND BY DR. BROWN [COMPANY NAME AND STOCK SYMBOL (TICKER)]

Mater Companies in Dr. Brown's Direct Testimony	*Standard	Gas Companies in Dr. Vander Weide's	*Standard Industrial
Water Companies in Dr. Brown's Direct Testimony		Direct Testimony For Tennessee-	
For CAPD	Industrial Code	Ателсап	Code
Artesian Resources (NASDAQ ARTNA)	4941 - Water Supply	AGL Resources (NYSE ATG)	4924 - Natural Gas Distributio
AMERICAN STATES WATER CO (NYSE AWR)	4941 - Water Supply	Atmos Energy Cp (NYSE ATO)	4924 - Natural Gas Distributio
Birmingham Utilities (AMEX BIW)	4941 - Water Supply	Nicor Inc (NYSE GAS)	4924 - Natural Gas Distributio
Connecticut Water Service Inc (NASDAQ CTWS)	4941 - Water Supply	KEYSPAN CORP (NYSE KSE)	4924 - Natural Gas Distributio
Consolidated Water Co Ltd (NASDAQ CWCO)	4941 - Water Supply	Northwest Natural (NYSE NWN)	4924 - Natural Gas Distributio
California Water Svc (NYSE CWT)	4941 - Water Supply	Predmont Nat Gas (NYSE PNY)	4924 - Natural Gas Distributio
Middlesex Water Company (NASDAQ MSEX)	4941 - Water Supply	Peoples Energy (NYSE PGL)	4924 - Natural Gas Distributio
Pennichuck Corporation (NASDAQ PNNW)	4941 - Water Supply	WGL Holdings Inc (NYSE WGL)	4924 - Natural Gas Distributio
S J W Cp (AMEX SJW)	4941 - Water Supply		
Southwest Water Company (NASDAQ SWWC)	4941 - Water Supply	**EQUITABLE GAS (NYSE EQT)	4923 - Natural Gas Transmisison & Distribution
Aqua America (NYSE WTR) - formerly Phila Suburban (NYSE PSC)	4941 - Water Supply		
York Water Company (NASDAQ YORW)	4941 - Water Supply		١
,			

The Standard Industrial Code (SIC) is the classification system used by the U.S. government for over 40 years to categorize industries.

DESPITE DR. VANDER WEIDE'S OPINION, THERE IS AMPLE DATA ON WATER COMPS. STOCK PRICES AND VOLUMES TRADED

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DR. VANDER WEIDE ARBITRARILY DEFINES A GAS LDC: EQUITABLE GAS IS NOT AN LDC IN HIS RECENT FERC TESTIMONY

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UNITED STATES OF AMERICA BEFORE THE FEDERAL ENERGY REGULATORY COMMISSION

Northern Natural Gas Company

Docket No. RP03-398-000

REBUTTAL TESTIMONY SUMMARY OF JAMES H. VANDER WEIDE

From Page 4 of Dr Vander Weide's Rebuttal Testimony

Table 1	
Gas Diversified Companies' 3-Year Average Business Segment	Income

	% Gas Pipeline	% Electric	% LDC	% Other
Equitable Resources	24.8%	-	64 3%	10.9%
National Fuel Gas	32.8%	-	54 1%	13.1%
ONEOK	15.5%	-	24.9%	59.6%
Questar Corporation	23.2%	-	23 6%	53.2%

In Response To the CAPD's Discovery Request of Nov 15, 2004, "Admit or Deny," Item 7, Dr Vander Weide Denies That Equitable Is A "Natural Gas Diversified Company"

From Page 5 of Dr. Vander Weide's Rebuttal Testimony

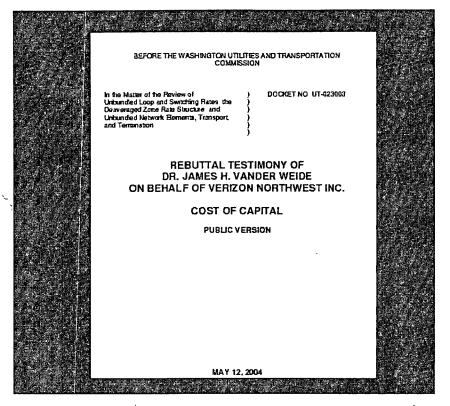
Table 2 LDCs' 3-Year Average Business Segment Income

	<u>% Gas</u> Pipeline	% Electric	% LDC	% Other
AGL Resources	-	-	91%	9%
Atmos Energy	-	_	87%	13%
New Jersey Resources	-	-	85%	15%
NICOR	-	-	86%	14%
Peoples Energy	-	7%	87%	6%
Piedmont Natural Gas	_	-	100%	-0.3%
South Jersey Industries	-	-	91%	9%

In Response To the CAPD's Discovery Request of Nov 15, 2004, "Admit or Deny," Item 6, Dr Vander Weide Denies That Equitable Is Not A Natural Gas Local Distribution Company

DR. VANDER WEIDE: THE COST OF CAPITAL MUST BE LINKED TO THE SPECIFIC INVESTMENT UNDER CONSIDERATION

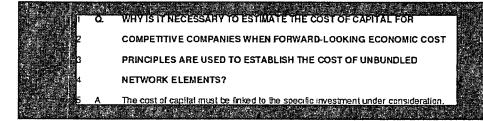
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From Pages 58-59 of Dr Vander Weide's Rebuttal Testimony

	19	Q.	ARE THERE MORE REASONABLE COMPARABLE COMPANIES FOR THE
	20		RBHCS' DIRECTORY PUBLISHING BUSINESSES?
	21	Α	Yes The most directly comparable company for the RBHCs' directory publishing
	22		businesses would be another publishing company such as R R Donnelley,
12.2			
	h		which has traditionally published directories for independent telephone
	L C	01077062880	companies.

From Page 48 of Dr Vander Weide's Rebuttal Testimony



In Response to the CAPD's Discovery Request of Nov 15, 2004, "Admit Or Deny," Item 2, Dr Vander Weide Denies That The Cost of Capital Must Be Linked To The Specific Investment Under

In Response to the CAPD's Discovery Request of Nov 15, 2004, "Admit or Deny," Item 3, Dr Vander Weide Denies That A Water Company Is The Most Directly Comparable Company To Another Water Company

DR. VANDER WEIDE REJECTS BETA AS A MEASURE OF RISK AND SUGGESTS MARKET-TO-BOOK RATIOS AS AN ALTERNATIVE

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From Dr. Vander Weide's Rebuttal Before the Washington PUC. Pages 23-24

1		
	27 A	. Yes. Real world investors simply do not evaluate investment risk in the simplistic
	28	way Dr. Selwyn suggests when he estimates Verizon NW's risk using beta.
	29	Rather, real-world investors need to be compensated for competitive market
	30	risks, a conclusion supported by several forms of evidence First, financial
	31	scholars have found that data such as a specific company's size, liquidity,
	-	
		23
	1	dividend yield, and market-to-book ratio provide better explanations of security
	2	returns than betas, which only measure the risks due to changes in the market as
	3	a whole. See, for example, Fischer Black, Michael C. Jensen. and Myron
	4	Scholes, *The Capital Asset Pricing Model: Some Empirical Tests," in Studies in
	5	the Theory of Capital Markets, M. Jensen, ed. New York: Praeger, 1972, Eugene

BOOK VALUES 2001-2003 WATER COS AND *GAS LDCS FROM SEC FORMS 10-K FILED BY THE COMPANIES

C

GAS	s co	MPA	NIES	IN DE	R. VA	NDEF	? '	WEI	DE'S	DIR	E	CT TE	STIN	IONY
				Shares Outs	tanding Dilute	d (Millions)		Book	Value Per	Share		Сотто	n Equity (N	illions)
Ticker	Source	ĊIK	Company	2003	2002	2001		2003	2002	2001		2003	2002	2001
ATG	100415S_AGL RESOURCES _10- K_2004_02_08_ 01 hbm	1004155	AGI, Rassources	63 70	56 60	55 60		\$ 14 84	\$ 12 55	\$ 12 41		\$9 4 5	\$710	\$690
АТО	731802_ATMOS ENERGY_10- K_2003_11_21_ 01 txl	731802	Abron Evergy	46 50	41 25	38 25		\$ 18 44	\$ 13 90	\$ 15 27		\$858	\$573	\$584
GAS	72020_NICOR INC_10- K_2004_02_20_ 01 htm	72020	Neor Inc	44 01	44 00	44 00		\$ 17 15	\$ 16 55	\$ 16 00		\$755	\$728	\$704
KSE	1052379_KEYS PAN CORP_10- K_2004_03_11_ 01 bt		KEYSPAN CORP	159 23	142 30	139 22		\$ 23 00	\$ 20 69	\$ 20 76		\$3,662	\$2,945	\$2,891
NWN	WEST NATURAL_10- K_2004_03_09_ 01 be	73020	Northwest Natural	26 06	25 81	25 61		\$ 19 43	\$ 1871	\$ 18 28		\$506	\$483	\$468
PNY	_10- K_2004_01_27_ 01 htm 78450_PIEDMO	78460	Padmont Nat Gas	33 50	32 94	32 42		\$ 1881	\$ 17 90	\$ 17 28		\$630	\$590	\$560
PGL	77385_PEOPLE S ENERGY _10- K_2003_12_11_ Num02_01 htm	77385	Peoples Energy	36 69	35 46	35 40		\$ 23 11	\$ 22 74	\$ 22 56		\$848	\$806	\$799
WGL	1103601_WGL HOLDINGS _10- K_A_2004_01_2 6_01.htm	1103601	WGL Heldings Inc	48 61	48 57	48 54		\$ 16 83	\$ 1578	\$ 16 24		\$818	\$766	\$788
						AV	_	\$ 18 95	\$ 17 35	\$ 1735	\Box			
			<u> </u>											

			WAT	ER CC	MPA	NIES		V SE	CD	ATA	3 <i>P</i>	SE		
				Shares Outstar	ding Diluted	(Thousands)		Book	Value Per	Share		Common	Equity (Th	ousands)
Ticker	Source	CIK	Company	2003	2002	2001	ú	2003	2002	2001	_	2003 -	2002 -	2001
ARTNA	AN RESOURCES _10- K_2004_03_10_ 01 bs	, 863110	ARTESIAN RESOURCES	3,993	3,612	3,108		\$ 13 20	\$ 14 17	\$ 11 08		\$52,691	\$51,176	\$34,44
AWR	1056903_AMERI CAN STATES _10- K_2004_G3_Z3_ 01.htm	1056903	AMERICAN STATES	15,200	15,144	15,120		\$ 13 98	\$ 14 08	\$ 13 54		\$212,487	\$213,279	\$204,65
BIW	1169237_BtW LTD _10- K_2004_03_30_ 03 tel	1169237	BWLTD	1,637	1,637	1,627		\$ 777	\$ 787	\$ 803		\$12,723	\$12,889	\$13,057
ctws	276209_CONNE CTICUT WATER_10- K_2004_03_12_ 01 htm	276209	CONNECTIOUT WATER	8,002	7,771	7,662		\$ 10 41	\$ 10 29	\$ 924		\$83,315	\$79,975	\$70,783
сисо	928340_CONS OLIDATED WATER _10- K_2004_04_14_ 01.htm	928340	CONSOLIDATED WATER	5 038	4,088	4,000		\$ 878	\$ 517	\$ 482		\$44,249	\$21,126	\$19,264
сwт	1035201_CALIF ORNIA WATER _10- K_2004_03_15_ 04 tsl	1035210	CAUFORNA WATER	15,015	15,015	15,015		\$ 16 29	\$ 13 27	\$ 13 09		\$244,524	\$199,217	
MSEX	65064_MIDDLES EX WATER _10- K_A_2004_04_3 0_01 txl	66004	MODLESEX WATER	10.818	10.623	10.474		\$ 736	\$ 720	\$ 690		\$79,643	\$76,501	\$72,290
PNNW	788685_PENNIC HUCK CORP _10- K_2004_03_30_ 01 htm	788885	PENNO4,CX CORP	2,398	2,412	2,400		\$ 12 58	\$ 12 62	\$ 12.75		\$30,172	\$30,433	\$30,595
s <i>JW</i>	766829_SJW CORP_10- K_2004_03_12_ 01 tsl	766829	S.W CORP	9,148	9,135	9,135		\$ 18 19	\$ 16 80	\$ 16 35		\$166,368	\$153,499	\$149,354
swwc	92472_SOUTH WEST WATER _10- K_2004_03_15_ 01	92472	SOUTHWEST WATER	14.661	13,668	13,217		\$ 540	\$ 449	\$ 418		\$79,160	\$61,324	\$55,205
WTR	78128_AQUA AMERICA_10- K_2004_03_15_ 09 tsl		ACILIA MMERICA	89,244	86,538	85,943			\$ 570	\$ 550		\$659.030	\$493,097	\$472,717
YORW	108985_YORK WATER _10- K_2004_03_12_ 02 Mm	108985	YORK WATER	6,406	6,386	6,330			\$ 588	\$ 567		\$39.057		
				-,,,,,,	5,500	AV	-	*	\$ 979	\$ 926	-+	φ33,U3/	\$37,217	\$35,891

M To B RATIOS PROVE THE WATER SUPPLY INDUSTRY IS FAR LESS RISKY THAN GAS LDCS,AND ITS RISK IS DECLINING

	2220/	,							For Entire Period	or Entu		₹atıo -A\	Γο Book Ratio -Average	Water Market To
		263%	288%	2:	163%	205%	247%	185%	222%	266%	225%	208%	166%	Average By Company
25.7%	204%		ĺ		163%	165%	220%	218%	197%	238%	173%	245%	152%	Mar-01
34 1%	216%		297%		174%	185%	247%	196%	189%	249%	190%	251%	162%	Jun-01
56 4%	226%				167%	189%	240%	206%	228%	299%	198%	273%	157%	Sep-01
60 2%	241%				174%	212%	246%	197%	235%	320%	235%	258%	186%	Dec-01
47 1%	235%				161%	198%	243%	193%	284%	266%	229%	250%	142%	Mar-02
50 6%	238%				161%	229%	274%	190%	276%	296%	236%	188%	136%	Jun-02
53.6%	218%			227%	155%	223%	235%	192%	221%	249%	227%	186%	133%	Sep-02
416%	217%				155%	229%	219%	178%	285%	245%	233%	164%	139%	Dec-02 '
46 1%					140%	176%	226%	158%	157%	255%	238%	171%	152%	Mar-03
40 1%					156%	196%	251%	173%	176%	245%	234%	195%	182%	Jun-03
41 2%	213%				155%	211%	250%	158%	202%	258%	230%	169%	191%	Sep-03
53 9%	232%		299%		164%	225%	276%	168%	228%	266%	246%	179%	211%	Dec-03
57 2%	240%	333%			191%	228%	281%	174%	215%	273%	252%	175%	214%	Mar-04
*														Quarter Ending
Street To the street of the st	Average By Quarter	YORW	WTR	SWWC	WLS	PNNW	MSEX	CWT	CWCO	CTWS	BIW	AWR	♦ ARTNA	
Book Ratio Than The Gas Industry														
Has A Higher Market-To-	175%	↓							Period	r Entire	rage Fo	tio -Ave	Book Ra	Gas Market To Book Ratio -Average For
Water Industry Always						165%	204%	172%	144%	222%	165%	147%	182%	1 100
EXCEEUS GAS	179%					170%	205%	172%	131%	233%	184%	156%	177%	Mar-01
WATER INDUSTRY						167%	205%	178%	136%	244%	176%	160%	191%	Jun-01
AMOUNT BY WHICH						166%	180%	176%	128%	242%	160%	141%	161%	Sep-01
The state of the s						179%	207%	168%	139%	260%	167%	139%	185%	Dec-01
	188%		ļ			170%	199%	173%	150%	275%	176%	170%	187%	Mar-02
	187%		İ			164%	207%	160%	154%	276%	182%	169%	185%	Jun-02
	165%					152%	198%	148%	157%	170%	162%	155%	176%	Sep-02
	175%	-				152%	197%	170%	145%	206%	170%	168%	194%	Dec-02
	151%					157%	190%	155%	129%	159%	140%	115%	159%	Mar-03
	171%					159%	206%	186%	140%	216%	154%	134%	171%	Jun-03
	172%					164%	207%	179%	149%	205%	153%	130%	190%	Sep-03
	178%					165%	231%	182%	158%	198%	160%	132%	196%	Dec-03
	183%					179%	224%	193%	161%	205%	166%	139%	196%	Mar-04
	The second													Quarter Ending
	Average By Quarter					WGL	PNY	PGL	z X Z	NICOR	KSE	ATO	◆ ATG	Stock Symbol

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		T	T	Book Value	
	Í			From SEC	i
		Closing		10K Filings	Ratio
Otrack O subside	Quarter	Price In		Available In	Market To
Stock Symbol ATG	Ending 2004/03/31	Quarter	Industry	April 2004	Book
ATG	2004/03/31	\$ 29 02	Gas Gas	\$14 84 \$14 84	196%
ATG	2003/09/30	\$ 28 17	Gas	\$14.84 \$14.84	196% 190%
ATG	2003/06/30	\$ 25 44	Gas	\$14.84	171%
ATG	2003/03/31	\$ 23 63	Gas	\$14 84	159%
ATG	2002/12/31	\$ 2430	Gas	\$12 55	194%
ATG	2002/09/30	\$ 22 09	Gas	\$12 55	176%
ATG	2002/06/28	\$ 23 20	Gas	\$12 55	185%
ATG	2002/03/28	\$ 23 50	Gas	\$12 55	187%
ATG	2001/12/31	\$ 23 02	Gas	\$12 41	185%
ATG ATG	2001/09/28	\$ 19 97 \$ 23 75	Gas	\$12 41	161%
ATG	2001/03/30	\$ 23 73	Gas Gas	\$12 41 \$12 41	191% 177%
ATO	2004/03/31	\$ 25 57	Gas	\$18 44	139%
ATO	2003/12/31	\$ 24 30	Gas	\$18 44	132%
ATO	2003/09/30	\$ 23 94	Gas	\$18 44	130%
ATO	2003/06/30	\$ 24 80	Gas	\$18 44	134%
ATO	2003/03/31	\$ 21 26	Gas	\$18 44	115%
ATO	2002/12/31	\$ 23 32	Gas	\$13 90	168%
ATO	2002/09/30 2002/06/28	\$ 21 50	Gas	\$13 90	155%
ATO	2002/06/28	\$ 23 44	Gas	\$13 90	169%
ATO	2002/03/28	\$ 23 60 \$ 21 25	Gas Gas	\$13 90 \$15 27	170% 139%
ATO	2001/09/28	\$ 21 60	Gas	\$15.27	141%
ATO	2001/06/29	\$ 24 46	Gas	\$15 27	160%
ATO	2001/03/30	\$ 23 80	Gas	\$15 27	156%
KSE	2004/03/31	\$ 38 22	Gas	\$23 00	166%
KSE	2003/12/31	\$ 36 80	Gas	\$23 00	160%
KSE	2003/09/30	\$ 35 08	Gas	\$23 00	153%
KSE KSE	2003/06/30	\$ 35 45	Gas	\$23 00 -	154%
KSE	2003/03/31 2002/12/31	\$ 32 25 \$ 35 24	Gas	\$23 00	140%
KSE	2002/12/31	\$ 35 24 \$ 33 50	Gas Gas	\$20 69 \$20 69	170%
KSE	2002/06/28	\$ 37 65	Gas	\$20 69	162% 182%
KSE	2002/03/28	\$ 36 39	Gas	\$20 69	176%
KSE	2001/12/31	\$ 34 65	Gas	\$20 76	167%
KSE	2001/09/28	\$ 33 24	Gas	\$20 76	160%
KSE	2001/06/29	\$ 36 48	Gas	\$20 76	176%
KSE	2001/03/30	\$ 38 13	Gas	\$20 76	184%
NICOR	2004/03/31	\$ 35 23	Gas	\$17 15	205%
NICOR NICOR	2003/12/31 2003/09/30	\$ 34 04	Gas	\$17 15	198%
NICOR	2003/09/30	\$ 35 14 \$ 37 11	Gas Gas	\$17.15	205%
NICOR	2003/03/31	\$ 27 32	Gas	\$17 15 \$17 15	216% 159%
NICOR	2002/12/31	\$ 34 03	Gas	\$16 55	206%
NICOR	2002/09/30	\$ 28 20	Gas	\$16 55	170%
NICOR	2002/06/28	\$ 45 75	Gas	\$16 55	276%
NICOR	2002/03/28	\$ 45 55	Gas	\$16 55	275%
NICOR	2001/12/31	\$ 41 64	Gas	\$16 00	260%
NICOR	2001/09/28	\$ 38 75	Gas	\$16 00	242%
NICOR NICOR	2001/06/29 2001/03/30	\$ 38 98	Gas	\$16 00	244%
NWN	2001/03/30	\$ 37 27 \$ 31 25	Gas Gas	\$16 00 \$19 43	233%
NWN	2003/12/31	\$ 30 75	Gas	\$19 43	161% 158%
NWN	2003/09/30	\$ 29 00	Gas	\$19 43	149%
NWN	2003/06/30	\$ 27 25	Gas	\$19 43	140%
NWN	2003/03/31	\$ 25 10	Gas	\$19 43	129%
NWN	2002/12/31	\$ 27 06	Gas	\$18 71	145%
NWN	2002/09/30	\$ 29 36	Gas	\$18 71	157%
NWN	2002/06/28	\$ 28 75	Gas	\$18 71	154%
NWN NWN	2002/03/28 2001/12/31	\$ 28 01	Gas	\$18 71	150%
NWN	2001/12/31	\$ 25 50 \$ 23 39	Gas Gas	\$18 28 \$18 28	139%
NWN	2001/06/29	\$ 24 90	Gas	\$18 28 \$18 28	128% 136%
NWN	2001/03/30	\$ 24 00	Gas	\$18 28	131%
				V.0 20	.01/0

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				Book Value	1 440 2 015
				From SEC	,
,		Closing		10K Filings	Ratio
	Quarter	Price In		Available In	Market To
Stock Symbol	Ending	Quarter	Industry	1	Book
PGL	2004/03/31	\$ 44 65	Gas	\$23.11	193%
PGL	2003/12/31	\$ 42 04	Gas	\$23 11	182%
PGL	2003/09/30	\$ 41 38	Gas	\$23.11	179%
PGL	2003/06/30	\$ 42 89	Gas	\$23 11	186%
PGL	2003/03/31	\$ 35 77	Gas	\$23 11	155%
PGL	2002/12/31	\$ 38 65	Gas	\$22.74	170%
PGL	2002/09/30	\$ 33 69	Gas	\$22 74	148%
PGL	2002/06/28	\$ 36 46	Gas	\$22 74	160%
PGL	2002/03/28	\$ 39 38	Gas	\$22.74	173%
PGL	2001/12/31	\$ 37 93	Gas	\$22 56	168%
PGL	2001/09/28	\$ 39 76	Gas	\$22.56	176%
PGL	2001/06/29	\$ 40 20	Gas	\$22 56	178%
PGL	2001/03/30	\$ 38 87	Gas	\$22 56	172%
PNY	2004/03/31	\$ 42 22	Gas	\$18 81	224%
PNY	2003/12/31	\$ 43.46	Gas	\$18.81	231%
PNY	2003/09/30	\$ 39 00	Gas	\$18 81	207%
·· · PNY	2003/06/30	\$ 38 81	Gas	\$18 81	206%
PNY	2003/03/31	\$ 35 65	Gas	\$18 81	190%
PNY	2002/12/31	\$ 35 35	Gas	\$17.90	197%
PNY	2002/09/30	\$ 35 47	Gas	\$17 90	198%
PNY	2002/06/28	\$ 36 98	Gas	\$17 90	207%
PNY	2002/03/28	\$ 35 60	Gas	\$17 90	199%
PNY	2001/12/31	\$ 35 80	Gas	\$17 29	207%
PNY	2001/09/28	\$ 31 14	Gas	\$17 29	180%
PNY	2001/06/29	\$ 35 52	Gas	\$17.29	205%
PNY	2001/03/30	\$ 35 50	Gas	\$17 29	205%
WGL	2004/03/31	\$ 30 10	Gas	\$16.83	179%
WGL	2003/12/31	\$ 27 79	Gas	\$16 83	165%
WGL	2003/09/30	\$ 27.58	Gas	\$16 83	164%
WGL	2003/06/30	\$ 26 70	Gas	\$16 83	159%
WGL	2003/03/31	\$ 26 49	Gas	\$16 83	157%
WGL ·	2002/12/31	\$ 23 92	Gas	\$15 78	152%
WGL	2002/09/30	\$ 23 91	Gas	\$15 78	152%
WGL	2002/06/28	\$ 25 90	Gas	\$15 78	164%
WGL	2002/03/28	\$ 26 86	Gas	\$15.78	170%
WGL	2001/12/31	\$ 29 07	Gas	\$16 24	179%
WGL	2001/09/28	\$ 26 89	Gas	\$16 24	166%
WGL	2001/06/29	\$ 27 11	Gas	\$16 24	167%
WGL	2001/03/30	\$ 27 65	Gas	\$16 24	170%

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	1		1	Book Value	
				From SEC	
		Closing		10K Filings	Ratio
	Quarter	Price In		Available In	Market To
Stock Symbol	Ending	Quarter	Industry	April 2004	Book
ARTNA	2004/03/31	\$ 28 23	Water	\$13 20	214%
ARTNA	2003/12/31	\$ 27.86	Water	\$13 20	211%
ARTNA	2003/09/30	\$ 25 25	Water	\$13 20	191%
ARTNA	2003/06/30	\$ 24 00	Water	\$13 20	182%
ARTNA	2003/03/31	\$ 20 07	Water	\$13 20	152%
ARTNA	2002/12/31	\$ 1977	Water	\$14 17	139%
ARTNA	2002/09/30	\$ 18 91	Water	\$14 17	133%
ARTNA	2002/06/28	\$ 1932	Water	\$14 17	136%
ARTNA	2002/03/28	\$ 20 13	Water	\$14 17	142%
ARTNA	2001/12/31	\$ 20 63	Water	\$11 08	186%
ARTNA	2001/09/28	\$ 17 45	Water	\$11 08	157%
, ARTNA	2001/06/29	\$ 17 99	Water	\$11.08	162%
ARTNA	2001/03/30	\$ 16 83	Water	\$11 08	152%
AWR AWR	2004/03/31	\$ 24 40	Water	\$13 98	175%
AWR	2003/12/31	\$ 25 00	Water	\$13 98	179%
AWR	2003/09/30	\$ 23 57	Water	\$13 98	169%
AWR	2003/06/30 2003/03/31	\$ 27 30 \$ 23 90	Water Water	\$13 98 \$13 98	195%
AWR	2003/03/31	\$ 23 90	Water	\$13 98 \$14 08	171% 164%
AWR	2002/09/30	\$ 26 22	Water	\$14 08	186%
AWR	2002/06/28	\$ 26 50	Water	\$14 08	188%
AWR	2002/03/28	\$ 35 25	Water	\$14 08	250%
AWR	2001/12/31	\$ 34 95	Water	\$13 54	258%
AWR	2001/09/28	\$ 37 00	Water	\$13 54	273%
AWR	2001/06/29	\$ 34 00	Water	\$13.54	251%
AWR	2001/03/30	\$ 33 11	Water	\$13 54	245%
BIW	2004/03/31	\$ 1960	Water	\$7 77	252%
BIW	2003/12/31	\$ 1910	Water	\$7 77	246%
BIW	2003/09/30	\$ 1785	Water	\$7 77	230%
- BIW	2003/06/30	\$ 18 15	Water	- \$7 77	234%
BIW	2003/03/31	\$ 1848	Water	\$7 77	238%
BIW	2002/12/31	\$ 1835	Water	\$7 87	233%
BIW	2002/09/30	\$ 17 90	Water	\$7 87	227%
BIW	2002/06/28	\$.18 55	Water	\$7 87	236%
BIW	2002/03/28	\$ 18 00	Water	\$7.87	229%
BIW	2001/12/31	\$ 18.85	Water	\$8 03	235%
BIW	2001/09/28	\$ 15 90	Water	\$8 03	198%
BIW	2001/06/29	\$ 15 27	Water	\$8 03	190%
BIW	2001/03/30	\$ 13.88	Water	\$8 03	173%
CTWS	2004/03/31 2003/12/31	\$ 28 41 \$ 27 65	Water	\$10 41	273%
CTWS	2003/12/31	\$ 26 87	Water	\$10 41	266%
CTWS	2003/09/30	\$ 25 53	Water Water	\$10 41 \$10 41	258%
CTWS	2003/00/30	\$ 26 55	Water	\$10.41	245%
CTWS	2003/03/31	\$ 25 23	Water	\$10.41	255% 245%
CTWS	2002/09/30	\$ 25 62	Water	\$10 29	249%
CTWS	2002/06/28	\$ 30 48	Water	\$10.29	296%
CTWS	2002/03/28	\$ 27 39	Water	\$10 29	266%
CTWS	2001/12/31	\$ 29 57	Water	\$9 24	320%
CTWS	2001/09/28	\$ 27 60	Water	\$9 24	299%
CTWS	2001/06/29	\$ 23 05	Water	\$9 24	249%
CTWS	2001/03/30	\$ 22 00	Water	\$9 24	238%
cwco	2004/03/31	\$ 18 85	Water	\$8 78	215%
CWCO	2003/12/31	\$ 20 05	Water	\$8 78	228%
CWCO	2003/09/30	\$ 17 75	Water	\$8 78	202%
CWCO	2003/06/30	\$ 15 42	Water	\$8 78	176%
CWCO	2003/03/31	\$ 1377	Water	\$8 78	157%
CWCO	2002/12/31	\$ 1474	Water	\$5 17	285%
CWCO	2002/09/30	\$ 1140	Water	\$5 17	221%
CWCO	2002/06/28	\$ 14 25	Water	\$5 17	276%
cwco	2002/03/28	\$ 14 69	Water	\$5 17	284%
CWCO	2001/12/31	\$ 11 34	Water	\$4 82	235%
CWCO	2001/09/28	\$ 11 00	Water	\$4 82	228%
CWCO	2001/06/29	\$ 910	Water	\$4 82	189%
cwco	2001/03/30	\$ 950	Water	\$4 82	197%

r				5 1 1 1	
				Book Value	
				From SEC	
		Closing		10K Filings	Ratio
	Quarter	Price In		Available In	Market To
Stock Symbol	Ending	Quarter	Industry	April 2004	Book
CWT	2004/03/31	\$ 28 29	Water	\$16 29	174%
CWT	2003/12/31	\$ 27 40	Water	\$16 29	168%
CWT	2003/09/30	\$ 2581	Water	\$16 29	158%
CWT	2003/06/30	\$ 28 12	Water	\$16 29	173%
CWT	2003/03/31	\$ 25 75	Water	\$16 29	158%
CWT	2002/12/31	\$ 23 65	Water	\$13 27	178%
CWT	2002/09/30	\$ 25 53	Water	\$13 27	192%
CWT	2002/06/28	\$ 25 20	Water	\$13 27	190%
CWT	2002/03/28	\$ 25 60	Water	\$13 27	193%
CWT	2001/12/31	\$ 25 75	Water	\$13 09	197%
CWT	2001/09/28	\$ 27 00	Water	\$13 09	206%
CWT	2001/06/29	\$ 2565	Water	\$13 09	196%
CWT	2001/03/30	\$ 28 60	Water	\$13 09	218%
MSEX	2004/03/31	\$ 20 70	Water	\$7 36	281%
MSEX	2003/12/31	\$ 20 30	Water	\$7 36	276%
MSEX	2003/09/30	\$ 18 43	Water	\$7 36	250%
MSEX	2003/06/30	\$ 18 50	Water	\$7 36	251%
MSEX	2003/03/31	\$ 16 62	Water	\$7 36	226%
MSEX	2002/12/31	\$ 15 77	Water	\$7 20	219%
MSEX	2002/09/30	\$ 16 92	Water	\$7 20	235%
MSEX	2002/06/28	\$ 1975	Water	\$7 20	274%
MSEX	2002/03/28	\$ 17 50	Water	\$7 20	243%
MSEX	2001/12/31	\$ 17 00	Water	\$6 90	246%
MSEX	2001/09/28	\$ 16 54	Water	\$6 90	240%
MSEX	2001/06/29	\$ 17 05	Water	\$6 90	247%
MSEX	2001/03/30	\$ 15 16	Water	\$6 90	220%
PNNW	2004/03/31	\$ 28 70	Water	\$12 58	228%
PNNW	2003/12/31	\$ 28 30	Water	\$12 58	225%
PNNW	2003/09/30	\$ 26 50	Water	\$12 58	211%
PNNW	2003/06/30	\$ 24 70	Water	\$12 58	196%
PNNW	2003/03/31	\$ 22 08	Water	\$12 58	176%
PNNW	2002/12/31	\$ 28 94	Water	\$12 62	229%
PNNW	2002/09/30	\$ 28 10	Water	\$12.62	223%
PNNW	2002/06/28	\$ 28 90	Water	\$12 62	229%
PNNW	2002/03/28	0.000		\$12.62	198%
PNNW	2001/12/31	\$ 25 00	Water Water	\$12 02	212%
PNNW	2001/09/28	\$ 24 06	Water	\$12.75	189%
PNNW	2001/06/29	\$ 23 53	Water	\$12.75	185%
PNNW	2001/03/30	\$ 21 05	Water	\$12.75	
SJW	2004/03/31	\$ 34 66			165%
SJW	2003/12/31	\$ 29 75	Water Water	\$18 19	191%
SJW	1			\$18 19	164%
SJW	2003/09/30	\$ 28 17	Water	\$18 19	155%
SJW	2003/06/30	\$ 28 42	Water	\$18 19	156%
SJW	2003/03/31	\$ 25 50	Water	\$18 19	140%
	2002/12/31	\$ 26 02	Water	\$16.80	155%
SJW	2002/09/30	\$ 26 00	Water	\$16.80	155%
SJW	2002/06/28	\$ 27 00	Water	\$16.80	161%
SJW	2002/03/28	\$ 27 07	Water	\$16 80	161%
SJW	2001/12/31	\$ 28 43	Water	\$16 35	174%
SJW	2001/09/28	\$ 27 30	Water	\$16 35	167%
SJW	2001/06/29	\$ 28 50	Water	\$16 35	174%
SJW	2001/03/30	\$ 26 58	Water	\$16 35	163%

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				Book Value	
				From SEC	
	•	Closing		10K Filings	Ratio
	Quarter	Price In		Available In	Market To
Stock Symbol	Ending	Quarter	Industry	Aprıl 2004	Book
SWWC	2004/03/31	\$ 13 67	Water	\$5.40	253%
SWWC	2003/12/31	\$ 12 00	Water	\$5 40	222%
SWWC	2003/09/30	\$ 10.58	Water	\$5 40	196%
SWWC	2003/06/30	\$ 10 52	Water	\$5.40	195%
SWWC	2003/03/31	\$ 9.40	Water	\$5.40	174%
SWWC	2002/12/31	\$ 996	Water	\$4 49	222%
SWWC	2002/09/30	\$ 1021	Water	\$4 49	227%
SWWC	2002/06/28	\$ 13 56	Water	\$4.49	302%
SWWC	2002/03/28	\$ 11 53	Water	\$4.49	257%
SWWC	2001/12/31	\$ 10 11	Water	\$4 18	242%
SWWC	2001/09/28	\$ 9.65	Water	\$4.18	231%
SWWC	2001/06/29	\$ 992	Water	\$4 18	237%
SWWC	2001/03/30	\$ 8 05	Water	\$4.18	193%
WTR	2004/03/31	\$ 21.68	Water	\$7 38	294%
WTR	2003/12/31	\$ 22.10	Water	\$7 38	299%
WTR	2003/09/30	\$ 1926	Water	\$7 38	261%
WTR	2003/06/30	\$ 1950	Water	\$7.38	264%
WTR -	2003/03/31	\$ 17 56	Water	\$7 38	- 238%
WTR	2002/12/31	\$ 16 48	Water	\$5 70	289%
WTR	2002/09/30	\$ 16 24	Water	\$5 70	285%
WTR	2002/06/28	\$ 16.16	Water	\$5.70	284%
WTR	2002/03/28	\$ 18.80	Water	\$5.70	330%
WTR	2001/12/31	\$ 18 04	Water	\$5 50	328%
WTR	2001/09/28	\$ 1681	Water	\$5 50	306%
WTR	2001/06/29	\$ 16 32	Water	\$5 50	297%
WTR	2001/03/30	\$ 15 08	Water	\$5.50	274%
YORW	2004/03/31	\$ 20 36	Water	\$6 12	333%
YORW	2003/12/31	\$ 18 20	Water	\$6.12	297%
YORW	2003/09/30	\$ 1700	Water	\$6 12	278%
YORW	2003/06/30	\$ 1624	Water	\$6.12	265%
YORW	2003/03/31	\$ 16 90	Water	\$6 12	276%
YORW	2002/12/31	\$ 14.19	Water	\$5 88	241%
YORW	2002/09/30	\$ 16 79	Water	\$5 88	286%
YORW	2002/06/28	\$ 16 50	Water	\$5 88	281%
YORW	2002/03/28	\$ 15 40	Water	\$5.88	262%
YORW	2001/12/31	\$ 14 63	Water	\$5 67	258%
YORW	2001/09/28	\$ 12 22	Water	\$5 67	215%
YORW	2001/06/29	\$ 12 38	Water	\$5 67	218%
YORW	2001/03/30	\$ 12.13	Water	\$5.67	214%
YORW	2001/06/29	\$ 12 38	Water	\$5 67	218%
YORW	2001/03/30	\$ 12.13	Water	\$5 67	214%

				Historical Prices Market to Be	ook Valuation A		1103 101	enom			
			Based On S	hares Outstandi			Reported	i In			
				SEC Form 10K							
			Number of Stock								
			Splits	`				1			
			January 1 2001 March 31, 2004	1							1
	Stock Ticker	Industry	March 31, 2004	 	 	-	+		 		
AGL Resources	ATG	Gas	0					<u> </u>			
Atmos Energy	ATO	Gas	0			·	+	 			
Nicor Inc	GAS	Gas	0				-	+	 		
KEYSPAN CORP	KSE	Gas	0								ļ
Northwest Natural	NWN	Gas	0	-	-	+	 				
Predmont Nat Gas	PNY	Gas	0								
	PGL	Gas		ļ 							
Peoples Energy			0		 		-	<u> </u>			ļ
WGL Holdings Inc	WGL	Gas	0	<u> </u>			ļ				
		 			-	-		ļ	ļ		ļ
								For Each Soli	t Adjust Histori	cal Data As	of March 31
					1			1	2004		Or Hearter 5
		 			 	 	+-	For Data Before	515 T.A. 1.2	. (45 to 12)	200 Jan 18 18 18 18 18 18 18 18 18 18 18 18 18
						1		July 11 2003 🗟 j	April 1985		14.00
ARTESIAN				3 for 2 Effective or				Divide prices	國大學		
RESOURCES	ARTNA	Water	1	July 1 2003 ^				Volumes By 1.5			
AMERICAN	ALAID		_				1	2002 V TO VIT 8 1			
STATES	AWR	Water	0		ļ	<u> </u>					
BIW LTD	BIW	Water	0								
								For Data Before			
						İ	1	Sept 10, 2001			
CONNECTICUT WATER	ctws	Water		3 for 2 Effective on				and Multiply			
	0100	- vaiei	1	Sept 10, 2001		-	<u> </u>	Volumes By 1 5			
CONSOLIDATED NATER	cwco	Water	0				,	volumes by 73			
CALIFORNIA .			-			-	+				
WATER	CWT	Water	0					Enterior and the second			
						† · · · ·	1	7.58 No. 7.	For Data		100 B
								For Data	Before * January 3	MMAG	& 1*
			1		1			Between	2002 and		
			İ		1			January 3, 2002	November		
							i	and November 16, 2003	16, 2003 Divide		
							Ī	Divide Pnces 🖔	Prices and		
MIDDLESEX				4 for 3 Effective on	2 for 1 Effective			Volumes By	Multiply Volumes By		
WATER	MSEX	Water	2	Nov 17 2003	on Jan,03 2002			1 33 3	1 995		
						<u> </u>		For Data Before			
				i	!		1	December 4, 2001 Divide			
							!	Prices and			
ENNICHUCK		i	-	4 for 3 Effective on				Multiply Volumes By			
ORP	PNNW	Water		Dec 04, 2001				1 33			
								For Data Before			
							İ	March 2 2004			
				3 for 1 Effective On	i			Divide Prices			
JW CORP	SJW	Water		March 2, 2004				and Multiply Volumes By 3			
							 -	1200/238 (1. 20 9.1	Between E	etween	1981 (128)
1								For Data	Dec 30	ept 27	
ļ					21 for 20 (5	21 for 20 (5		Between Jan 21 2004 and			For Data Before Jan
1					percent stock	percent stock		Dec 30, 2002	2001 Divide 2	001 Divide	22, 2001
					dividend) Effective On	dividend) Effective On	Effective On	Divide Prices	Prices and P	nces and	Divide Price
OUTHWEST	CLARACO			4 for 3 Effective On	December 30	Sept 27	January	Volumes By	Multiply Volumes By V	luluply (*) olumes By	and Multiply Volumes By
ATER	SWWC	Water	4	January 21, 2004	2002	2001	22 2001			466297	1 832872
]	-								Before Dec	10 to	
								Between Dec 3 2003 and Dec 1	3 2001 Divide		
ON AMEDICA								3 2001 Divide	Pinces and [31		
QUA AMERICA formerly		1	[]					Prices and	Vultiply		
hiladelphia	14.75	1		5 For 4 Effective	5 For 4 Effective			Volumes By	/olumes By 1.56(1.25°1 "		
uburban)	WTR	Water		On Dec 2 2003	On Dec 3 2001			1 25	(5)		
								For Data Before	· · · · · · · · · · · · · · · · · · ·		· 海峡 13
								Feb 21, 2002 Divide Prices			W. T.
	VORIA			for 1 Effective On	ı			and Multiply.			
ORK WATER	YORW	Water	1 1	eb 21 2002		l		Volumes By 2		5 4 W. X	rate chief

STOCK TURNOVER RATE WATER VS GAS LDCS SLOWER RATE FOR WATER PROVES WATER COS ARE LESS RISKY

9.0	2003/08/22	100 2%	44,091,100	Yes	2001/01/02	2004/03/31	44,011,206	MILOR	
90	2003/05/23	100 5%	36,244,500	Yes	2001/01/02	2004/03/31	36,689,968	FGL	Peoples Energy
1	2003/03/27	100 2%	50,016,000	Yes	2001/01/02	2004/03/31	46,496,000	200	Almos Energy
 	2003/03/03	100 0%	159,292,600	Yes	2001/01/02	2004/03/31	139,232,000	Non	CEYSPAN CORP
11	2003/02/24	100 1%	63,385,200	Yes	2001101102	2004/03/31	150 222 000	Ken	AGL Resources
12	2003/01/31	100 2%	33,514,100	Yes	2001/01/02	2004/03/34	63 700 000	ATG	Predmont Nat Gas
13	2002/12/03	100 2%	48,713,100	Yes	2001/01/02	2004/03/31	33 441 000	PNY	WGL Holdings Inc
15	2002/10/01	100 8%	20,009,200	- 93	20010102	2001/02/21	48 612 000	WCI	Northwest Natural
rears		Outstalldillg	Original Land	Var.	2001/01/02	2004/03/31	26.061.000	NWN	Nicor Inc
\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \		OutStanding	Shares Traded	Dates	₽	Ą	April 2004	Company Ticker	Direct Testimony For Tennessee-American
Tradina	[YYYY/MM/DD	Percent Of Stock	-	and End	Analysis Ends Analysis Begins	Analysis Ends	Available in		Gas Companies in Dr. Vanuer Weides
	Since	Shares Traded As		Beginning		· ·	7		Gas Companies in Dr. Vandos Weidele
	lumOver	1		7			10 5		-
	1 0 0 0 0			Nith n			Most Recent		
	100% Stock			Reached			Listed In		
,				TurnOver		•	Outstanding		
				0.00			0.000		
				Stock 100%			Stock		
		-		2					
34	Average								
15	2002/09/20	102 2%	91,190,425	Yes	20/10/102	2004/03/31	05,244,000	NA	
16	2002/09/05	100 0%	14,664,189	Yes	2001/01/02	2004/03/31	14,661,000	SWWC	AOUA AMERICA
17	2002/07/18	100 1%	5,043,700	Yes	2001/01/02	2004/03/31	0,037,030	CARCO	SOLITHWEST WATER
1.8	2002/06/27	100 3%	2,404,300	Yes	20/10/1002	2004/03/31	5,037,530	CWCO	CONSOLIDATED WATER
22	2002/01/16	100 1%	15,025,600	Yes	20/10/10/2	2004/03/31	308 108	DAMIN	PENNICHUCK CORP
23	2001/11/29	1001%	10,213,300	C as	2001/01/02	2004/02/24	15.015.000	CMT	CALIFORNIA WATER
32	2001/01/18	100 2%	15 742 200	۲ - au	2001/01/02	2004/03/31	15 200 000	AWR	AMERICAN STATES
3.5	2000/10/04	90 0%	10,000	V22	2001/01/02	2004/03/33	10 818 000	MSEX	MIDDLESEX WATER
4 3	77771,6661	2000	7 440 800	200	2001/01/02	2004/03/31	8 002 000	CTWS	CONNECTICUT WATER
40	70/01/6681	75.00/	000 000	S	2001/01/02	2004/03/31	9.148.476	WLS	SJW CORP
54	1990/10/20	79 794	4 525 500	No	2001/01/02	2004/03/31	6,405,843	YORW	YORK WATER
0	1000/10/05	59.7%	2 384 250	No	2001/01/02	2004/03/31	3,993,000	ARTNA	ARTESIAN RESOURCES
000	1005/06/01	36.8%	602.300	No	2001/01/02	2004/03/31	1,637,076	BIW	BIWLID
Davs	Since	OutStanding	Shares Traded	Dates	_	₽	April 2004	Company Ticker	vvater Companies in SEC Data Base
250	TurnOver	Percent Of Stock		and End	Analysis Begins	Analysis Ends	Available in	•	10/2
Year =	100% Stock	Shares Traded As		Beginning					
[Trading				Within		-	Wost Recent		
Turnover		_	,	Keached			Mark Daniel		
For 100%				Dochod			l isted in		
Veduned		,		T			Outstanding		
Penin				Stock		_	Stock		
Years				100%					
Tradino							-		

SUMMARY: CAP STRUCTURE FOR WATER COMPS WITH STOCK TRADED IN U.S., AND

WHICH FILE WITH THE SEC

### ### ##############################	Weide & Capital Struc ** ** ** ** ** ** ** ** **	*TO The Average of All Companies. The Exclusion of PNNW Would *TO The Average of All Companies. The Exclusion of PNNW Would *TO The Average of All Companies. The Exclusion of PNNW Would *TO The Average of All Companies. The Exclusion of PNNW Would *TO The Average of All Compane to Dr. V *TO The Average of All Compane to Dr. V *TO The Average of All Company Water Company Schedule to Tenn Tenn Tenn Tenn Preferred Cap \$ Total to Tenn Preferred Cap \$ Total to Tenn Preferred Cap \$ Total to Tenn Tenn Preferred Cap \$ Total to Tenn Preferred Cap \$ Total to Tenn Water Company 135 8 696 7 00 1,944 3 2,736 8 3 Calloma Water 7 4 250 4 478 3 739 6 478 3 739 6 5 York Water Company 9 9 29 9 00 128 8 168 6 Compositio 2126 1,276 9 40 3,072 0 4,568 5
5 40.0% 5 52.6% 0.4% 6 100.0% ital Structure	Weide's Capital Struc ** Freferred Egury ** 000% 5581% ** 000% 658% ** 047% 6467% ** 047% 6467% ** 009% 77839% ** 009% 6724%	* To The Average of All Companies. The Exclusion of PNNW Would * To The Average of All Companies. The Exclusion of PNNW Would * To The Average of All Companies. The Exclusion of PNNW Would * Company Ware
5 40.0% 5 52.6% 6 0.4% 6 100.0% ital Structure	# Preferred Equity % 000% 5581% % 000% 6588% % 018% 72.25% % 019% 67.24% # 009% 67.24%	*To The Average of All Companies. The Exclusion of PNNW Would *To The Average of All Companies. The Exclusion of PNNW Would *To The Average of All Companies. The Exclusion of PNNW Would Company Tennessee-American Water Company *To The Average to Dr. V *To The Average of All Companies. The Exclusion of PNNW Would Company Name
5 52.6% 6 0.4% 6 100.0% ital Structure	## Preferred Equity % 0.00% 55.81% % 0.00% 65.88% % 0.47% 64.67% % 0.18% 72.25% % 0.00% 76.39% % 0.00% 67.24%	* To The Average of All Companies. The Exclusion of PNNW Would * To The Average of All Companies. The Exclusion of PNNW Would * To The Average of All Companies. The Exclusion of PNNW Would * Company Water Company Market Dobt Dobt Proxy Water Company Market Dobt Dobt Preferred Cap \$ Total No Company Market Dobt Dobt Preferred Cap \$ Total Amer States Water 568 50 4 228 8 00 1,904 3 2,736 8 2 Aqua America 135 8 666 7 00 1,904 3 2,736 8 3 Caldonia Water 7 4 250 4 3 5 478 3 739 6 5 York Water Company 9 9 0 0 128 8 735 0 1,904 3 1,668 5 5 York Water Company 9 9 0 0 128 8 168 6 Composite 212 6 1,278 9 4 0 3,072 0 4,568 5
5 40.0% 5 52.6% 6 0.4% 6 100.0% ital Structure	Weide's Capital Struct ** Preferred Equity ** 000% 5581% ** 000% 6958% ** 018% 72.25% ** 018% 72.55% ** 018% 778.39%	*To The Average of All Companies. The Exclusion of PNNW Would *To The Average of All Companies. The Exclusion of PNNW Would *To The Average of All Companies. The Exclusion of PNNW Would *To The Average of All Companies. The Exclusion of PNNW Would Companies. The Exclusion of PNNW Would *To The Average of All Companies. The Exclusion of PNNW Water Company *To The Exclusion of PNNW Water Companies. The Exclusion of PNNW Water Company *To The Exclusion of PNNW Water Companies. The Exclusion of PNNW Water Company *To The Exclusion of PNNW Water Companies. The Exclusion of PNNW Water Companies
5 40.0% 5 52.6% 6 0.4% 6 100.0% ital Structure	Weide's Capital Structory Referred Equity 0.00% 5581% 0.00% 65881% % 0.00% 65881%	* To The Average of All Companies. The Exclusion of PNNW Would * To The Average of All Companies. The Exclusion of PNNW Would * To The Average of All Companies. The Exclusion of PNNW Would * Companies. The Exclusion of PNNW Would * Companies. The Exclusion of PNNW Would * Companies. The Exclusion of PNNW Water Company * Tenn Term Preferred Cap \$ Total Copy Company Name Doby Copy Equity (Mil) Copy Copy Copy Copy Copy Copy Copy Copy
5 40.0% 5 52.6% 6 0.4% 6 100.0% ital Structure	Weide's Capital Structory % Preferred Equity % Possessing 55 81%	* To The Average of All Companies. The Exclusion of PNNW Would * To The Average of All Companies. The Exclusion of PNNW Would * To The Average of All Companies. The Exclusion of PNNW Would * Company Water Company Water Company * Tenne Short- Long- Market * Line Company Name Dobt Debt Equity (Mil) Capital * Annex States Water 136 8 625 8 00 362 0 648 6 * Annex America 136 8 666 7 00 362 0 648 6 * Annex America 136 8 666 7 00 362 0 648 6
5 40.0% 5 52.6% 0.4% 6 100.0% ital Structure		* To The Average of All Companies. The Exclusion of PNNW Would * To The Average of All Companies. The Exclusion of PNNW Would Company Schedule F AVERAGE CAPITAL STRUCTURE OF PROXY WATER COMPANY Short. Long. Line Short. Long. Short. Long. Long. Short. Long. Long. Short. Long. Long. Short. Long. Long. Company Name Dobt Company Name Dobt Company Name Company Name Dobt Company Name Comp
5 40.0% 5 52.6% 6 0.4% 6 100.0% ital Structure	Weide's Capital Struc	* To The Average of All Companies. The Exclusion of PNNW Would * To The Average of All Companies. The Exclusion of PNNW Would Compare to Dr. V TENNESSE-AMERICAN WATER COMPANY SCHEDULE F AVERAGE CAPITAL STRUCTURE OF PROXY WATER COMPANY Short- Long- Market
5 40.0% 5 52.6% 6 0.4% 6 100.0% ital Structure	Weide's Capital Struc	* To The Average of All Companies. The Exclusion of PNNW Would * To The Average of All Companies. The Exclusion of PNNW Would * To The Average of All Companies. The Exclusion of PNNW Would * To The Average of All Companies. The Exclusion of PNNW Would * To The Exclusion of
5 40.0% 5 52.6% 0.4% 6 100.0% ital Structure	alluer welde's Capital Struc	* To The Average of All Companies. The Exclusion of PNNW Would To The Average of All Companies. The Exclusion of PNNW Would Compare to Dr. V. TENNESSEE-AMERICAN WATER COMPANY SCHEDULE F
5 40.0% 5 52.6% 0.4% 6 100.0% ital Structure	alluer welde's capital struc	* To The Average of All Companies. The Exclusion of PNNW Would To The Average of All Companies. The Exclusion of PNNW Would Compare to Dr. V
5 40.0% 5 52.6% 0.4% 6 100.0% ital Structure	valider vyelde's Capital Struc	* To The Average of All Companies. The Exclusion of PNNW Would To The Average of All Companies. The Exclusion of PNNW Would Companies.
5 40.0% 5 52.6% 0.4% 6 100.0% ital Structure	valluer welde's Capital Struc	* To The Average of All Companies. The Exclusion of PNNW Would To The Average of All Companies. The Exclusion of PNNW Would Companies Compare to Dr. V.
5 40.0% 5 52.6% 0.4% 6 100.0% ital Structure	valluer vveide's Capital Struc	* PNNW May Be Taken Over By A Municipality But PNNW's Capital * To The Average of All Companies. The Exclusion of PNNW Would Compare to Dr. V
5 40.0% 5 52.6% 6 100.0%	Condo Moidolo Conitar Character	* PNNW May Be Taken Over By A Municipality But PNNW's Capital * To The Average of All Companies. The Exclusion of PNNW Would
5 40.0% 5 52.6% 6 100.0%		*PNNW May Be Taken Over By A Municipality But PNNW's Capital *To The Average of All Companies. The Exclusion of PNNW Would
5 40.0% 5 52.6% 0.4% 6 100.0%	Vould Have Little Impact On The Capital Structure	* PNNW May Be Taken Over By A Municipality But PNNW's Capital
41.1% 40.6% 40.0% 50.1% 52.6% 52.6% 0.3% 0.4% 0.4% 100.0% 100.0% 100.0%	pital Structure Is Almost Identical	
41.1% 40.6% 40.0% 50.1% 52.6% 52.6% 0.3% 0.4% 0.4% 100.0% 100.0% 100.0%		
41.1% 40.6% 40.0% 50.1% 52.6% 52.6% 0.3% 0.4% 0.4%	100.0%	lotal
41.1% 40.6% 40.0% 50.1% 52.6% 52.6%	0.4% 0.4	rred
41.1% 40.6% 40.0%	52.6%	Common Equity
1.0.0	40.6%	Long-Term Debt
0.8%	1.4% 0.8% 1.0%	Term Debt
		Short-Term Debt: Current Portion of Long-
Votes Due 7.0% 5.7% 5.9% 6.2%	5.7%	Short-Term Debt: Notes Due
Components As Of: 2003 2002 2001 3 Yr Average	2002	capital structure components As Or.

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DETERMINATION OF COMMON EQUITY RATIOS AND CAPITAL STRUCTURE FOR COMPARABLE COMPANIES

		m	
Schedule 15	Direct Testimony	Exhibit CAPD-SB	Docket No 04-00288

ANTINA	(In Thousands of \$)	of \$)		
ARTNA 3 Ca	3 Capital Structure Components As Of:	2003: Dec 31	2002. Dec 31	2001: Dec 31
ARTNA	2 Short Torm Dohr Notes Die			
	יסיי יסייי שליטיי ייסיים בייסיים	\$12,499	\$3,763	\$76,778
ARTNA 5 Sh	5 Short-Term Debt: Current Portion of Long-Term Debt	\$188	\$421	\$1,328
Lo	Long-Term Debt			
ARTNA 6		\$80.558	\$63.970	\$49.370
ARTNA 7 Cc	7 Common Equity	\$52.691	\$51.176	\$34 445
	8 Preferred	\$100	\$100	\$100
ARTNA 9 To	Total	\$146,036	\$118,830	\$101.361
ARTNA 10				
ARTNA 11	RATIOS:			
	12 Short-Term Debt: Notes Due	8.6%	2.7%	15.9%
	13 Short-Term Debt: Current Portion of Long-Term Debt	0.1%	0.4%	1 3%
ARTNA 14 Lo	14 Long-Term Debt	55.2%	53.8%	48.7%
ARTNA 15 C	15 Common Equity	36.1%	43.1%	34.0%
ARTNA 16 Pr	16 Preferred	0.1%	0.1%	01%
ARTNA 17 Total				

DETERMINA ANI FOR C

ATION OF COMMON EQUITY RATIOS	
ND CAPITAL STRUCTURE	
COMPARABLE COMPANIES	

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AWR	1	American States Water: Consolidated	dated Capitalization	zation	
AWR	2	(In Thousands of \$)			
AWR	ယ	Capital Structure Components As Of:	2003. Dec 31	2002: Dec 31 2001: Dec 31	2001
AWR	4	Short-Term Debt. Notes Due	\$56,000	\$35,000	\$20,000
AWR	5	Short-Term Debt: Current Portion of Long-Term Debt	\$820	\$13,305	\$800
AWR	6	6 Long-Term Debt	\$229,799	\$231.089	\$245.692
AWR	7	7 Trust Preferred Securities	\$0	\$0	\$280
AWR	8	8 Common Equity	\$212,487	\$213,279	\$204.654
AWR	9	Total -	\$499.106	\$492.673	\$471 426
AWR	10				1
AWR	11	RATIOS:			
AWR	12	12 Short-Term Debt Notes Due	11 2%	7.1%	4.2%
AWR	13	13 Short-Term Debt: Current Portion of Long-Term Debt	0.2%	2.7%	0.2%
AWR	14 1	14 Long-Term Debt	46.0%	46.9%	52.1%
AWR	15	15 Trust Preferred Securities	0.0%	0.0%	0.1%
AWR	16	16 Common Equity	42 6%	A3 3%	13 10/
AWR	17	17 Total	10000	.0.000	10:1/0

DETERMINATION OF COMMON EQUITY RATIOS AND CAPITAL STRUCTURE

	-	DETERMINATION OF COMMON EQUITY RATIOS AND CAPITAL STRUCTURE FOR COMPARABLE COMPANIES	QUITY RAT RE \NIES	los		Docket No 04-00288 Exhibit CAPD-SB Direct Testimony Schedule 15 Page 3 of 12
	-					
BIW	7	Birmingham Utilities: Consolidated Ca	ed Capitalization	tion		
BIW	2	(In Thousands of \$)	of \$)		,	
BIW	ယ	Capital Structure Components As Of:	2003: Dec 30	2002: Dec 30	2001: Dec 30	
BIW	4	Short-Term Debt Notes Due	\$4,799	\$0	\$0	
BIW	55	Short-Term Debt: Current Portion of Long-Term Debt	\$94	\$94	\$94	
BIW	6	Long-Term Debt	\$3,948	\$4,042	\$4.136	
BIW	7	Common Equity	\$12,723	\$12,889	\$13.057	
BIW	8	Preferred	\$0	\$0	90	
BIW	9	Total	\$21,564	\$17.025	\$17.287	
BIW	10				1	
BIW	11	RATIOS:				
BIW	12	Short-Term Debt: Notes Due	22.3%	0.0%	0.0%	
BIW	13	Short-Term Debt: Current Portion of Long-Term Debt	0.4%	0 6%	0.5%	
BIW	14	Long-Term Debt	18.3%	23.7%	23.9%	
BIW	15	Common Equity	59.0%	75.7%	75.5%	
						•
BIW	16	Preferred	0.0%	0 0%	0.0%	
BIW	17	Total	100%	100%	100%	

100%

100%

FOR COMPARABLE COMPANIES	AND CAPITAL STRUCTURE	DETERMINATION OF COMMON EQUITY RATIOS
Page 4 of 12	Direct Testimony	Docket No 04-00288

CWT	CWT	CWT	CWT	CWT	CWT	CWT	CWT	CWI	CWT	CWT	CWI	CW1	CWT	CWI	CWI	CWT	
17	16	15	14	13	12	11	10	9	Cn	7	6			L	2		
17 Total	16 Preferred	15 Common Equity	14 Long-Term Debt	13 Short-Term Debt: Current Portion of Long-Term Debt	12 Short-Term Debt Notes Due	RATIOS:		Total	8 Preferred	Common Equity	Long-Term Debt	5 Short-Term Debt: Current Portion of Long-Term Debt	4 Short-Term Debt: Notes Due	Capital Structure Components As Of	(In Thousands	California Water Svc Group:Consolidated	
100 0%	0.7%	46.3%	51.6%	0 2%	1.2%			\$527,583	\$3,475	\$244,524	\$272,226	\$904	\$6,454	2003: Dec 31	sands of \$)		
100.0%	0.7%	40.6%	51 0%	0 2%	7.4%		,	\$490,436	\$3,475	\$199,217	\$250,365	\$1,000	\$36,379	2002: Dec 31		Capitalization	
100.0%	0.8%	45.7%	47.1%	1 3%	5.1%			\$430,075	\$3,475	\$196,619	\$202,600	\$5,381	\$22,000	2001: Dec 31		,	•
																	·

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DETERMINATION OF COMMON EQUITY AND CAPITAL STRUCTURE FOR COMPARABLE COMPANIES

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Direct Testimony
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Page 5 of 12

CTWS	1	Connecticut Water Service: Consolidated	_	Canitalization	
CTWS	2	(In Millions of \$)		ווצמנוטוו	
CTWS	ယ	Capital Structure Components As Of:	2003: Dec 30	2002: Dec 30	2001 · Dec 30
CTWS	4	4 Short-Term Debt: Notes Due	\$9.700	\$6 950	\$4 825
CTWS	5	5 Short-Term Debt: Current Portion of Long-Term Debt	\$254	\$242	\$2,020
CTWS	6	6 Long-Term Debt	\$64.754	467 727	\$62.053
CTWS	7	Common Equity	\$83.315	\$79 975	\$70,783
CTWS	8	8 Preferred	\$847	\$847	\$60,700
CTWS	9	Total	\$158.870	\$152 748	\$430.643
CTWS	10			4.00, 10	#100,010
CTWS	11	RATIOS:			
CTWS	12	12 Short-Term Debt: Notes Due	6.1%	4.5%	1.3%
CTWS	13	13 Short-Term Debt: Current Portion of Long-Term Debt	0.2%	0.2%	1.6%
CIWS	14	14 Long-Term Debt	40.8%	42 4%	45.8%
CTWS	15	15 Common Equity	52.4%	52.4%	50.7%
CTWS	16	16 Preferred	0.5%	0.6%	0 6%
CTWS	17	17 Total	100.0%	100.0%	100.0%

FOR COMPARABLE COMPANIES	AND CAPITAL STRUCTURE	DETERMINATION OF COMMON EQUITY RATIOS
Page 6 of 12	Direct Testimony	Docket No 04-00288

Water Co. Ltd.: Consolidated Capital (In \$) ts As Of: \$2,072,245	2003: Dec 31 2002: Dec 31 \$2,072,245 \$1,143,850	: Current Portion of Long-Term Debt \$3,763,144	\$16,633,437 \$2,074,609	\$21,126,224		\$24,886,646		10	RATIOS:	Short-Term Debt: Notes Due RATIOS: 3.1% 4.6%	RATIOS: Short-Term Debt: Notes Due Short-Term Debt: Current Portion of Long-Term Debt 5.6% 2.1%	RATIOS: Short-Term Debt: Notes Due Short-Term Debt: Current Portion of Long-Term Debt Long-Term Debt 24.9% 8.3%	Short-Term Debt: Notes Due Short-Term Debt: Current Portion of Long-Term Debt Long-Term Debt Common Equity RATIOS: 3.1% 4.6% 2.1% 2.1% 24.9% 8.3%	RATIOS: Short-Term Debt: Notes Due 3.1% 4.6% Short-Term Debt: Current Portion of Long-Term Debt 5.6% 2.1% Long-Term Debt 24.9% 8.3% Common Equity 66.3% 84.9% Preferred 0.0% 0.1%
31	Dec 31 2002: Dec 31: Dec 31: \$1,143,850	\$518,275		\$2,074,609	\$2,074,609 \$21,126,224	\$2,074,609 \$21,126,224 \$23,688	\$2,074,609 \$21,126,224 \$23,688 \$24,886,646	\$2,074,609 \$21,126,224 \$23,688 \$24,886,646	\$2,074,609 \$21,126,224 \$23,688 \$24,886,646	\$2,074,609 \$21,126,224 \$23,688 \$24,886,646	\$2,074,609 \$21,126,224 \$23,688 \$24,886,646 4.6% 2.1%	\$2,074,609 \$21,126,224 \$23,688 \$24,886,646 4.6% 2.1% 8.3%	\$2,074,609 \$21,126,224 \$23,688 \$24,886,646 4.6% 2.1% 8.3% 84.9%	\$2,074,609 \$ \$21,126,224 \$: \$23,688 \$24,886,646 \$: 4.6% 2.1% 8.3% 84.9% 0.1%

DETERMINATION OF COMMON EQUITY RATIOS

FOR COMPARABLE COMPANIES	AND CAPITAL STRUCTURE	DETERMINATION OF COMMON EQUITY RATIOS
Page 7 of 12	Direct Testimony	Docket No 04-00288

MSEX	Middlesex Water Company: Consolidate	lidated Capita	d Capitalization	
MSEX	2 (ln \$)			
MSEX	3 Capital Structure Components As Of:	2003: DEC 30	2002: DEC 30 2001; DEC 30	2001: DEC 30
MSEX	4 Short-Term Debt: Notes Due	\$12,500,000	\$17.650.000	\$13.225.000
MSEX	5 Short-Term Debt. Current Portion of Long-Term Debt	\$1,067,258	\$639.427	\$358.836
MSEX	6 Long-Term Debt	\$97,376,847	\$87.483.382	\$88.140.459
MSEX	7 Common Equity	\$79,643,184	\$76,501,245	\$72.290.312
MSEX	8 Preferred	\$4,063,062	\$4.063.062	\$4.063.062
MSEX	9 Total	\$194,650,351	\$186.337.116 \$178.077.669	\$178 077 669
MSEX	10			
MSEX	11 RATIOS:			
MSEX	12 Short-Term Debt: Notes Due	6.4%	9.5%	7.4%
MSEX	13 Short-Term Debt: Current Portion of Long-Term Debt	0.5%	0.3%	0.2%
MSEX	14 Long-Term Debt	50.0%	46 9%	49 5%
MSEX	15 Common Equity	40.9%	41.1%	40.6%
MSEX	16 Preferred	21%	2 2%	2 30/
	-			
MSEX	17 Total	100.0%	100.0%	100 0%

FOR COMPARABLE COMPANIES	AND CAPITAL STRUCTURE	DETERMINATION OF COMMON EQUITY RATIOS
Page 8 of 12	Direct Testimony	Docket No 04-00288

PNNW 17			PNNW 14				PNNW 10	PNNW 9	PNNW 8	PNNW 7				PNNW	PNNW 2	PNNW 1	,	
Total	16 Preferred	15 Common Equity	14 Long-Term Debt	13 Short-Term Debt. Current Portion of Long-Term Debt	12 Short-Term Debt: Notes Due	RATIOS:		Total	Preferred	Common Equity	6 Long-Term Debt	Short-Term Debt: Current Portion of Long-Term Debt		Capital Structure Components As Of:	(In Thousands of \$)	Pennichuck Corporation: Consolidated		
100.0%	0.0%	50.8%	45.2%	0.6%	3.4%			\$59,419	\$0	\$30,172	\$26,879	\$368	\$2,000	2003: Dec 31	of \$)	ated Capitalization		
100.0%	0.0%	51.4%	45.4%	0.6%	2.6%	,		\$59,181	\$0	\$30,433	\$26,860	\$354	\$1,534	2002: Dec 31		ization		
100.0%	0.0%	51.4%	45.5%	0.6%	2 5%			\$59,482	\$0	\$30,595	\$27,072	\$348	\$1,467	2001. Dec 31				-

FOR COMPARABLE COMPANIES	AND CAPITAL STRUCTURE	DETERMINATION OF COMMON EQUITY RATIOS
Page 9 of 12	Direct Testimony	Docket No 04-00288

9.4% 9.8% 2.8% 1.3% 47.6% 46.3% 40.2% 42.4% 0.0% 0.1%	0 0%		
		16 Preferred	WTR
	44.2%	15 Common Equity	
	46.7%	14 Long-Term Debt	WIR
	2.6%	13 Short-Term Debt: Current Portion of Long-Term Debt	
	6.5%	12 Short-Term Debt: Notes Due	
		11 RATIOS:	
	-	10	WTR
57 \$	541	9 Total	WTR
		8 Preferred	WIR
	\$659,030 \$	7 Common Equity	WIR
\$582,910 \$516,520	\$696,666 \$	6 Long-Term Debt	WIR
	\$39,386 \$	5 Short-Term Debt: Current Portion of Long-Term Debt	N X
\$115,113 \$109,668	\$96,459 \$	4 Short-Term Debt: Notes Due	NIR
2002: Dec 30 2001: Dec 30	2003: Dec 30 200	3 Capital Structure Components As Of:	N/R
	of \$)	2 (In Thousands of \$)	WTR
	Capitalization	1 Aqua America: Consolidated Capitalization	WTR
-			

DETERMINATION OF COMMON EQUITY AND CAPITAL STRUCTURE FOR COMPARABLE COMPANIES

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WLS	MLS	Mrs	WLS	SJW	SJW	Mrs	WLS	SJW	SJW	SJW	SUV	SIM	SIM	SJW	WES	WCS	
17	16	15	14	13	12	11	10	9	00	7	0	5	4	. cu	2	1	
17 Total	16 Preferred	15 Common Equity	14 Long-Term Debt	13 Short-Term Debt. Current Portion of Long-Term Debt	12 Short-Term Debt: Notes Due	RATIOS:		9 Total	8 Preferred	Common Equity	6 Long-Term Debt	5 Short-lerm Debt: Current Portion of Long-Term Debt	4 Short-Term Debt: Notes Due	Capital Structure Components As Of:	(In Thousands of \$)	S J W: Consolidated Capitalization	
100%	0.0%	54.3%	. 45.6%	0.1%	0.0%	,		\$306,166	\$0	\$166,368	\$139,614	\$184	\$0	2003: Dec 30	of \$)	italization	
100%	0.0%	55.8%	40.0%	0.0%	4.2%			\$274,949	0\$	\$153,499	\$110,000	\$0	\$11,450	2002: Dec 30 2001: Dec 30			<u>;</u>
100%	0.0%	55.1%	40.6%	0.0%	4.2%			\$270.854	\$0	\$149,354	\$110,000	\$0	\$11,500	2001: Dec 30			

DETERMINATION OF AND CAPIT,

SWWC SWWC SWWC

11

10 9 Total 8 Preferred

SWWC

SWWC

SWWC

SWWC

6 Long-Term Debt 7 Common Equity

5 Short-Term Debt: Current Portion of Long-Term Debt

3 Capital Structure Components As Of.

Southwest Water Company: Consolidated Capitalization

(In Thousands of \$)

2003: Dec 31

2002: Dec 31

2001: Dec 31

\$13,863

\$3,344

\$20,158 \$1,969

\$16,609

\$2,697

\$56,493 \$79,160

\$61,324 \$60,827

\$55,205 \$50,967

\$513

\$513

\$155,466

\$144,791

\$123,892

\$507

4 Short-Term Debt: Notes Due

SWWC

SWWC

SWWC SWWC

SWWC

SWWC

SWWC

SWWC

SWWC

15 Common Equity 14 Long-Term Debt

50 9%

42.4% 42 0%

41.1%

36.3%

10.7% 1.7%

13 9% 1.4%

11.2% 2.7%

100.0%

100.0%

100 0%

0.4% 44.6%

0.4%

03%

13 Short-Term Debt: Current Portion of Long-Term Debt

12 Short-Term Debt: Notes Due

RATIOS.

SWWC

17 Total 16 Preferred

ARI F COMDANIES	AL STRUCTURE	COMMON EQUITY RATIOS

FOR COMPARABLE COMPANIES Direct Testimony_____Schedule 15______Page 11 of 12_____ Docket No 04-00288 Exhibit CAPD-SB_____

FOR COMPARABLE COMPANIES	AND CAPITAL STRUCTURE	DETERMINATION OF COMMON EQUITY RATIOS
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7		,		,	,
YORW		York Water Company: Consolidated Capitalization	ted Capitaliz	ation	
YORW	· 2		of \$)		
YORW	မ	Capital Structure Components As Of:	2003: Dec 31	2002: Dec 31	2001 · Dan 21
YORW	4	4 Short-Term Debt: Notes Due	\$7 153	\$2 738	\$2,000
YORW	5	5 Short-Term Debt: Current Portion of Lang-Term Debt	\$2 720	829	\$1,000
YORW	5	6 Long-Term Deht	\$30 DAS	2000	
YORW	7	Common Equity	\$30.057	\$37,002	\$32,090
YORW		8 Droferrod	φυσ,υυ/	\$31,211	\$30,897
VNDW/		Table	90	30	\$0
ONT	4	3 10181	\$78,862	\$72,645	\$70.620
YORW	10		,		
YORW	11	RATIOS:			
YORW	12	12 Short-Term Debt: Notes Due	9.1%	3.8%	2.8%
YORW	13	13 Short-Term Debt: Current Portion of Long-Term Debt	3.5%	0.1%	0.1%
YORW	14	14 Long-Term Debt	37.9%	44.9%	46.3%
YORW	15	15 Common Equity	49.5%	51.2%	50.8%
YORW	16	16 Preferred	0.0%	0.0%	0 0%
YORW		17 Total	400.08/	100 00/	100.00/

ARTNA Independent Auditor's Statement

To the Board of Directors and Stockholders of Artesian Resources Corporation

We have audited the accompanying consolidated balance sheets of Artesian Resources Corporation and subsidiaries as of December 31, 2003 and 2002, and the related consolidated statements of operations, changes in stockholders' equity and cash flows for each of the years in the three-year period ended December 31, 2003. In connection with our audits of the consolidated financial statements, we have also audited the financial statement schedule as listed in Item 15 of this Form 10-K. These consolidated financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these consolidated financial statements based on our audits.

We conducted our audits in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of Artesian Resources Corporation and subsidiaries as of December 31, 2003 and 2002, and the results of their operations and their cash flows for each of the years in the three-year period ended December 31, 2003 in conformity with accounting principles generally accepted in the United States of America Also, in our opinion, the related financial statement schedule, when considered in relation to the basic consolidated financial statements taken as a whole, presents fairly, in all material respects, the information set forth therein

/s/ KPMG LLP

Philadelphia, Pennsylvania

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AWR Independent Auditor's Statement

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To the Board of Directors and Shareholders of American States Water Company

whether the financial statements are free of material misstatement. An audit includes examining, on a America, which require that we plan and perform the audits to obtain reasonable assurance about statements in accordance with auditing standards generally accepted in the United States of opinion on these financial statements based on our audits. We conducted our audits of these are the responsibility of the Company's and SCW's management, our responsibility is to express an accounting principles generally accepted in the United States of America These financial statements flows for the each of the three years in the period ended December 31, 2003 in conformity with shareholders' equity and of cash flows present fairly, in all material respects, the financial position of Company (SCW) at December 31, 2003 and 2002, and the results of their operations and their cash American States Water Company and its subsidiaries (the Company) and Southern California Water capitalization and the related consolidated statements of income, of changes in common In our opinion, the accompanying consolidated balance sheets and consolidated statements of

asset retirement obligations the Company adopted Statement of Financial Accounting Standards No. 143 and began accruing for As discussed in Note 1 to the accompanying consolidated financial statements, on January 1, 2003

method of accounting for goodwill the Company adopted Statement of Financial Accounting Standards No. 142 and changed its As discussed in Note 1 to the accompanying consolidated financial statements, on January 1, 2002

PricewaterhouseCoopers LLP Los Angeles, California

BIW Independent Auditor's Statement

Docket No 04-00288

Schedule 16 Direct Testimony_

BIW Limited Ansonia, Connecticut Board of Directors and Shareholders

opinion on these financial statements based on our audits statements of income and retained earnings and cash flows for each of the three subsidiaries as of December 31, 2003 and 2002, and the related consolidated years in the period ended December 31, 2003 These financial statements are the We have audited the accompanying consolidated balance sheets of BIW Limited and responsibility of the Company's management. Our responsibility is to express an

significant estimates made by management, as well as evaluating the overall statements An audit also includes assessing the accounting principles used and reasonable basıs for our opınıon financial statement presentation. We believe that our audits provide a statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial perform the audit to obtain reasonable assurance about whether the financial in the United States of America Those standards require that we plan and We conducted our audits in accordance with auditing standards generally accepted

operations and their cash flows for each of the three years in the period ended subsidiaries as of December 31, 2003 and 2002 and the results of their the United States of America December 31, 2003 in conformity with accounting principles generally accepted in fairly, in all material respects, the financial position of BIW Limited and In our opinion, the consolidated financial statements referred to above present

Shelton, Connecticut & Sterczala, P C

Dworken, Hillman, LaMorte

AUDITORS

CWCO Independent Auditor's Statement

Independent Auditors' Report

Consolidated Water Co Ltd The Board of Directors and Stockholders

statements of income, stockholders' equity and cash flows for each of the years in the three-year We have audited the accompanying consolidated balance sheets of Consolidated Water Co. Ltd. and subsidiances (the "Company") as of December 31, 2003 and 2002, and the related consolidated financial statements based on our audits period ended December 31, 2003. These consolidated financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these consolidated

that our audits provide a reasonable basis for our opinion made by management, as well as evaluating the overall financial statement presentation. We believe statements. An audit also includes assessing the accounting principles used and significant estimates examining, on a test basis, evidence supporting the amounts and disclosures in the financial assurance about whether the financial statements are free of material misstatement. An audit includes States of America Those standards require that we plan and perform the audit to obtain reasonable We conducted our audits in accordance with the auditing standards generally accepted in the United

In our opinion, the consolidated financial statements referred to above present fairly, in all material aspects, the financial position of Consolidated Water Co. Ltd. and subsidianes as of December 31, 2003 and 2002, and the results of their operations and cash flows for each of the three years in the three-year penod ended December 31, 2003, in conformity with accounting principles generally accepted in the United States of America

George Town, Cayman Islands

Exhibit 23 1

7-Apr-04

CONSENT OF INDEPENDENT ACCOUNTANTS

which appear in this Form 10-K Ltd of our report dated April 7, 2004 relating to the financial statements Statement on Form F-3 (Registration No 333-104902) of Consolidated Water Co Statement on Form S-8 (Registration No 333-10206) and the Registration We consent to the incorporation by reference in the Registration

/s/ KPMG Chartered Accountants

Cayman Islands

14-Apr-04

CONSENT OF INDEPENDENT ACCOUNTANTS

Exhibit 23 2

Statement on Form S-8 (Registration No. 333-10206) and the Registration Statement on Form F-3 (Registration No. 333-104802) of Consolidated Water Co. which appear in this Form 10-K Ltd of our report dated March 12, 2004 relating to the financial statements We consent to the incorporation by reference in the Registration

Is/ KPMG Chartered Accountants

British Virgin Islands

14-Apr-04

CTWS Independent Auditor's Statement

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REPORT OF INDEPENDENT AUDITORS

To the Board of Directors and Stockholders of Connecticut Water Service, Inc :

a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing whether the financial statements are free of material misstatement. An audit includes examining, on express an opinion on these financial statements based on our audits. We conducted our audits of statements of income and cash flows present fairly, in all material respects, the financial position of America, which require that we plan and perform the audit to obtain reasonable assurance about these statements in accordance with auditing standards generally accepted in the United States of financial statements are the responsibility of the Company's management, our responsibility is to conformity with accounting principles generally accepted in the United States of America. These their operations and their cash flows for each of the two years ended December 31, 2003 in Connecticut Water Service, Inc. and subsidiaries at December 31, 2003 and 2002, and the results of In our opinion, the accompanying consolidated balance sheets and the related consolidated

/s/ PricewaterhouseCoopers LLP Boston, Massachusetts

February 11, 2004, except for Note 16, as to which the date is March 4, 2004

CWT Independent Auditor's Statement

THE BOARD OF DIRECTORS AND STOCKHOLDERS CALIFORNIA WATER SERVICE GROUP:

statements based on our audits responsibility is to express an opinion on these consolidated financial statements are the responsibility of the Company's management. Our three-year period ended December 31, 2003. These consolidated financial equity and comprehensive income, and cash flows for each of the years in the 2002, and the related consolidated statements of income, common stockholders California Water Service Group and subsidiaries as of December 31, 2003 and We have audited the accompanying consolidated balance sheets of

significant estimates made by management, as well as evaluating the overall statements An audit also includes assessing the accounting principles used and statements are free of material misstatement. An audit includes examining, on a accepted in the United States of America. Those standards require that we plan reasonable basis for our opinion financial statement presentation. We believe that our audits provide a test basis, evidence supporting the amounts and disclosures in the financial and perform the audit to obtain reasonable assurance about whether the financia We conducted our audits in accordance with auditing standards generally

principles generally accepted in the United States of America three-year period ended December 31, 2003, in conformity with accounting results of their operations and their cash flows for each of the years in the Water Service Group and subsidiaries as of December 31, 2003 and 2002, and the present fairly, in all material respects, the financial position of California In our opinion, the consolidated financial statements referred to above

KPMG LLP

Mountain View, California

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MSEX Independent Auditor's Statement

To the Board of Directors and Stockholders of Middlesex Water Company

on our audits of cash flows for each of the three years in the period ended December 31, 2003 statements of income, common stockholders' equity and comprehensive income, and Our responsibility is to express an opinion on these financial statements based (the "Company") as of December 31, 2003 and 2002, and the related consolidated capital stock and long-term debt of Middlesex Water Company and subsidiaries We have audited the accompanying consolidated balance sheets and statements of These financial statements are the responsibility of the Company's management

significant estimates made by management, as well as evaluating the overall statements An audit also includes assessing the accounting principles used and statements are free of material misstatement. An audit includes examining, on a in the United States of America Those standards require that we plan and reasonable basis for our opinion financial statement presentation. We believe that our audits provide a test basis, evidence supporting the amounts and disclosures in the financial perform the audit to obtain reasonable assurance about whether the financial We conducted our audits in accordance with auditing standards generally accepted

and 2002, and the results of its operations and its cash flows for each of the principles generally accepted in the United States of America three years in the period ended December 31, 2003, in conformity with accounting material respects, the financial position of the Company at December 31, 2003 In our opinion, such consolidated financial statements present fairly, in all

As discussed in Note 10, the accompanying 2002 and 2001 financial statements have been restated

/s/ Deloitte & Touche LLP Parsippany, New Jersey

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PNNW Independent Auditor's Statement

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To the Shareholders and Board of Directors of Pennichuck Corporation.

schedules listed in the index appearing under Item 15(a)(2) on page 65, present fairly, in all material accepted in the United States of America. In addition, in our opinion, the financial statement all material respects, the financial position of Pennichuck Corporation and its subsidiaries at statements of income, stockholders' equity, comprehensive income and cash flows present fairly, in responsibility of the Company's management; our responsibility is to express an opinion on these financial statements. These financial statements and financial statement schedules are the two years in the period ended December 31, 2003 in conformity with accounting principles generally respects, the information set forth therein when read in conjunction with the related consolidated December 31, 2003 and 2002, and the results of their operations and their cash flows for each of the In our opinion, the accompanying consolidated balance sheets and the related consolidated

/s/ PricewaterhouseCoopers LLP

Boston, Massachusetts

SJW Independent Auditor's Statement

The Shareholders and Board of Directors SJW Corp

We have audited the accompanying consolidated balance sheets of SJW Corp and subsidiaries (the Company) as of December 31, 2003 and 2002, and the related consolidated statements of income and comprehensive income, changes in shareholders' equity, and cash flows for each of the years in the three-year period ended December 31, 2003. In connection with our audits of the consolidated financial statements, we also have audited the accompanying financial statement schedule. These consolidated financial statements and financial statement schedule are the responsibility of the Company's management. Our responsibility is to express an opinion on these consolidated financial statements and financial statement schedule based on our audits.

We conducted our audits in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of SJW Corp and subsidiaries as of December 31, 2003 and 2002, and the results of their operations and their cash flows for each of the years in the three-year period ended December 31, 2003, in conformity with accounting principles generally accepted in the United States of America. Also in our opinion, the related financial statement schedule, when considered in relation to the basic consolidated financial statements taken as a whole, presents fairly, in all material respects, the information set forth therein

KPMG LLP

Mountain View, California

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SWWC Independent Auditor's Statement

INDEPENDENT AUDITORS' REPORT

To the Board of Directors and Stockholders of Southwest Water Company

opinion on these consolidated financial statements and financial statement schedules based on our schedules are the responsibility of the Company's management. Our responsibility is to express an in the accompanying index. These consolidated financial statements and financial statement consolidated financial statements, we also have audited the financial statement schedules as listed subsidiaries (the Company) as listed in the accompanying index. In connection with our audits of the We have audited the consolidated financial statements of Southwest Water Company and

We believe that our audits provide a reasonable basis for our opinion estimates made by management, as well as evaluating the overall financial statement presentation financial statements. An audit also includes assessing the accounting principles used and significant audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the reasonable assurance about whether the financial statements are free of material misstatement. An United States of America Those standards require that we plan and perform the audit to obtain We conducted our audits in accordance with auditing standards generally accepted in the

statements taken as a whole, present fairly, in all material respects, the information set forth therein accounting principles generally accepted in the United States of America Also, in our opinion, the related financial statement schedules, when considered in relation to the basic consolidated financial flows for each of the years in the three-year period ended December 31, 2003, in conformity with as of December 31, 2003 and 2002, and the consolidated results of their operations and their cash material respects, the consolidated financial position of Southwest Water Company and subsidiaries In our opinion, the consolidated financial statements referred to above present fairly, in all

its method for accounting for the amortization of goodwill As discussed in Note 1 to the consolidated financial statements, in 2002, the Company changed

3/ KPMG LLP

Los Angeles, California

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12-Mar-04

WTR Independent Auditor's Statement

To the Board of Directors and Stockholders of Aqua America, Inc.:

audits provide a reasonable basis for our opinion evaluating the overall financial statement presentation. We believe that our the accounting principles used and significant estimates made by management, and supporting the amounts and disclosures in the financial statements, assessing material misstatement. An audit includes examining, on a test basis, evidence obtain reasonable assurance about whether the financial statements are free of statements in accordance with auditing standards generally accepted in the of the Company's management, our responsibility is to express an opinion on operations and their cash flows for each of the three years in the period ended consolidated statements of income and comprehensive income, of capitalization United States of America, which require that we plan and perform the audit to these financial statements based on our audits. We conducted our audits of these the United States of America. These financial statements are the responsibility December 31, 2003 in conformity with accounting principles generally accepted in its subsidiaries at December 31, 2003 and 2002, and the results of their position of Aqua America, Inc (formerly Philadelphia Suburban Corporation) and and of cash flow present fairly, in all material respects, the financial In our opinion, the accompanying consolidated balance sheets and the related

PRICEWATERHOUSECOOPERS LLP

PricewaterhouseCoopers LLP Philadelphia, PA

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YORW Independent Auditor's Statement

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Schedule 16

To the Shareholders and Board of Directors

The York Water Company York, Pennsylvanıa

audited by other auditors, whose report dated March 4, 2003, expressed an unqualified opinion on statements of The York Water Company for the years ended December 31, 2002 and 2001 were those statements then ended These financial statements are the responsibility of the Company's management. Our 2003, and the related statements of income, shareholders' investment, and cash flows for the year responsibility is to express an opinion on these financial statements based on our audit. The financial We have audited the accompanying balance sheet of The York Water Company as of December 31,

statements An audit also includes assessing the accounting principles used and significant We believe our audit provides a reasonable basis for our opinion estimates made by management, as well as evaluating the overall financial statement presentation. assurance about whether the financial statements are free of material misstatement. An audit States of America Those standards require that we plan and perform the audit to obtain reasonable We conducted our audit in accordance with auditing standards generally accepted in the United includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial

generally accepted in the United States of America operations and its cash flows for the year then ended, in conformity with accounting principles the financial position of The York Water Company as of December 31, 2003, and the results of its In our opinion, the 2003 financial statements referred to above present fairly, in all material respects,

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Consolidated Balance Shee December 31, 2003

Assets No €million	te 12/31/03	12/31/02
Non-current assets (1) (1) (1)	1) (7) (1) (8)	174.83.44
Intangible assets and the state of the state	- 19,418	18,518
Property, plant and equipment	36,210	33,779
Financial assets'		9,280
	62406	61,577
Current assets	(1) 李三十八章	Yathir.
Invéntories (1	2) 💒 🛴 3;285	3,505
Accounts receivable and other assets (1	3) 16.947	16,371
Marketable securities (1	4) - 39,615	8,459
Cash and cash equivalents:	5) 2,181	= 2,143
The same of the sa	E2020	`st 30,478 i
Deferred taxes (1	6) (22)	7,593
Prepaid expenses		625
	N 992Q2	100,273

Equity and Liabilities €million			Note	12/31/03	12/31/02
Equity/minority interest	t.		(17)	F 4. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1.	7
Group interest		•		. 7,013	- 6,429
Minority interest			.,	2,052	2,495
Progress of the control of the contr	The state of the	Marine Sagar	- ,	9005	8,924
Provisions		10,5	(18)	- CLON	40,187
Liabilitiès 👙 🔭 🔻 🗸		er e	(19)	(4061	41,140
Deferred taxes			(16)	9526	- ^क ्26,566 ३
Deferred income	e grania je se	t che prog	(20)	2000	3,456
Carrie Carrie Const.	The second of the second	,", - · · · · · · .	i ša	99142	100,273

Include €3,674 million in financial assets accounted for using the equity method (previous year €4,030 million)

Include €23,100 million in long-term interest-bearing liabilities (previous year €23,935 million)

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RWE AG's net worth, financial position and earnings situation

RWE AG is the management holding company of the RWE Group. Through the Group Center, it performs general management tasks and optimizes the Group's structure. RWE AG's situation is largely determined by the Group's activities.

The financial statements of RWE AG, which have been issued an unqualified audit opinion by PwC Deutsche Revision Aktiengesellschaft Wirtschaftsprufungsgesellschaft, are published in the Bundesanzeiger (Federal Gazette) and filed with the Commercial Register of the Essen District Court They can be ordered from RWE AG and are also available on the Internet

Financial statements of RWE AG

The financial statements of RWE AG are prepared in accordance with the German Commercial Code and the German Stock Corporation Act. A brief overview is provided below.

Balance sheet of RWE AG (abridged) €million	12/31/03	12/31/02
Non-current assets		
Financial assets	142-735	32,498
Current assets	特別的	
Accounts receivable from affiliates	4.013	4,884
Other accounts receivable and other assets	٠٠٠٠ 321٠ - ا	204
Marketable securities and cash and cash equivalents		1,340
Total assets	49,951	38,926
Equity	4,440,	4,176
Provisions	\$2.7.83	8,730
Accounts payable to affiliates	29,823,	21,104
Other liabilities	\$ 6,905	4,916
Total equity and liabilities	3.49.951	38,926
Income statement of RWE AG (abridged) € million	2003	2002
Income from financial assets	2.554	2,736
Net interest	2 c 1 257	- 1,069
Other expenses and income	400	318
Profit from ordinary activities		1,985
Taxes on income	(2) (4) (4)	- 836

27 75 20 52 28 23 29 70 28 72 20 37 28 45 33 55	20 52 28 23	28 23
28 35	28 35	28 35 29 75
28 50	28 50	28 50 29 40
28 30	28 30	28 30 29 33
28 25	Н	28 25
28 35	28 35	28 35 29 72
28 51	28 51	28 51 29 97
28 52	28 52	28 52
28 21	28 21	28 21 29 73
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+	+	29 84
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28 75 36 7	Н	36 77
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+	+	3817
+	+	38 00
-	-	37 20
28 66 36 2	28 66 36 27	H
		36 30
+	+	36 26
28 85 36 0	28 85 36 01	36 01
+	+	+
+	+	35 95
78 76 76	+	36.00
+	+	36.05
+	+	35.75
28 50 35	28 50 35 54	+
+	+	35 75
-	-	35 53
-	-	34 64
_	_	35 10
-	-	35 80
-	-	-
-	-	36 08
H	H	35 74
╁	╁	35 35
+	+	34 70
28 70 34 6	28 70 34 66	-
\vdash		

WATER COMPS DCF RETURN USING THEIR ACTUAL DIV. GROWTH: THIS RETURN IS MUCH LESS THAN DR. VANDER WEIDE'S

Dividend Dividend Dividend Dividend Dividend Canonic	13 Investors	12 basis to i	develop e	ā	-	BOARD CHAIRMAN		Ť		SZ G	SOURCE OF GROWTH Source of GROWTH		80111	DELIES ON LIDIE VANCIDE 3 Q 29 What is UBLES?	From	Average 0.59 0.62 0.65 0.67 0.69 5.85	SJW CP (AMEX SJW) \$0.80 \$0.82 \$0.86 \$0.92 \$0.97 4.94	N Pennichuck Corporation (NASDAQ PNNW)* \$0.69 \$0.73 \$0.76 \$0.81	Middlesex Water Company (NASDAQ MSEX) \$0.59 \$0.61 \$0.62 \$0.63		Connecticut Water Service, Inc. (NASDAQ CTWS) \$0.79 \$0.80 \$0.80 \$0.81	Birmingham Utilities (AMEX BIW)* ' \$0.40 \$0.50 \$0.58 \$0.60 \$0.60	ARTINA (NASDAQ ARTINA)* \$0.71 \$0.73 \$0.74 \$0.77 \$0.80 2.95	YORW York Water Company (NASDAQ YORW)* \$0.47 \$0.49 \$0.51 \$0.53 \$0.55 4.01	Aqua America(NYSE WTR)	C Southwest Water Company (NASDAQ SWWC)* \$0 12 \$0 13 \$0 16 \$0 18	California Water Svc (NYSE CWT) \$1 09 \$1 10 \$1 12 \$1 13	\$0 88		Symbol Water Company (1) (2) (3) (4) (5) (6)	Dividend Growth Rate Since Dividend History From SEC 10K Forms 1999	
(2003 Caverage C			EPS growth (3) are reported on a time	djecuors or repulable inendal analysis wh		(1) are widely circulated in the imanca	S growth estimates?	made of future film performance		ation of forecast for each firm. Investore us	orecasts are expressed in terms of a mea	analysts EPS grown forecasts for a broa			Direct Testimony P	17 37	20 543 \$	3 32 \$	2 37 \$	0 00 \$	1 35 \$	000 \$	81 357 \$	377 \$	698 \$	12 50 \$	0.45 \$	1 38	(%)	9	nd Dividend n Growth Rate Since 2002	Price
In Dr Vander Wiede's Testimony? (11) (11) Yes Yes Yes Yes Yes Yes Yes Yes Yes Ye		1	y					growth over t	\$					Account to the second	Federal R	-	2 490	2 480	3 800	2 920	3 270	2 600	3 590	2 960	2 400	1 820	5 190	3 420			 Dividend) / (Average Daily Closing Price)	Ē
			A section of the sect	The state of the s	iovernance At the Stem School of	Chairman Alan Greenspan		hal period averaged about 7 percei	Bar behveen 1985 and 2001 Advis	maket by I/B/E/S amount	SIC Infee- to live-year earnings to SP 500 corporations compiled from	alysts, on average, have been pers	earnings forecasts of brokerage-bu		eserve Board Chariman'	NO	NO	NO	N	NO	NO	NO	NO I	Yes	Yes	Yes	Yes	Vac		_		_

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Risk Premium in CAPM Analysis Should Be Based On 10.4%

,	
(1) 1925 1926 1927 1927 1928 1930 1931 1931 1932 1933	YEAR
(2) 1 00 1 12 1 54 2 20 2 02 1 52 0 86 0 79 1 21	Large Company Total Return Index For Year
(3) 11 60% 37 54% 43 58% -8 44% -24 88% -43 34% -8 15% 53 87%	Year-To-Year Percentage Change in Large Company Total Return Index

	28 70%	2284 79	2003	School S As As also Share a second state of the second state of th
	-22 10%	1775 34	2002	-2022
	-11 88%	2279 13	2001	*****
true average return	-9 11%	2586 52	2000	return\$2284
CACICOUNIACO OL UIC	21 04%	2845 63	1999	average
Overestimate of the	28 58%	2350 89	1998	avorago
This is an	33 37%	1828 37	1997	estimate of the true
12 41% annually	23 07%	1370 95	1996	This is an accurate
gollar grew at	37 43%	1113 92	1995	10 42% annually
L : : : : : : : : : : : : : : : : : : :	1 31%	810 54	1994	dollar gross at
Investment of \$1	9 99%	800 08	1993	dollar grew at
\$9242 if an	7 67%	727, 41	1992	investment of \$1
19Z3 Would be	30 55%	675 59	1991	De \$∠∠85 II an
100F	-3 17%	517 50	1990	
Accumulated since	31 49%	534 46	1989	since 1925 would
means the Wealth	16 81%	406 46	1988	wealth accumulated
(3), IS 12 41 70, WIIICH	5 23%	347 97	1987	which means the
(3) 15 13 110/ 11.5.5.	18 47%	330 67	1986	Which manages that
and losses in Col	32 16%	279 11	1985	(2), is 10 41%.
on percentage gains	6 27%	211 20	1984	the values in Col
William based solely	22 51%	198 74	1983	WillCit is pased on
which is based solely	21 41%	162 22	1982	which is based on
Average Return.	-4 91%	133 62	1981	Average Return,
The <u>Arimheuc</u>	32 42%	140 51	1980	The Geometric
The Authorities	18 44%	106 11	1979	H. O www.row.

*Source Ibbotson Associates 2004 Yearbook

ACTUAL RETURN

BIASED RETURN

Column (2) - From Table B-1 "Large Company Stocks Total Return Index" the index column Column (3) - From Table A-1 "Large Company Stocks Total Return" far right column

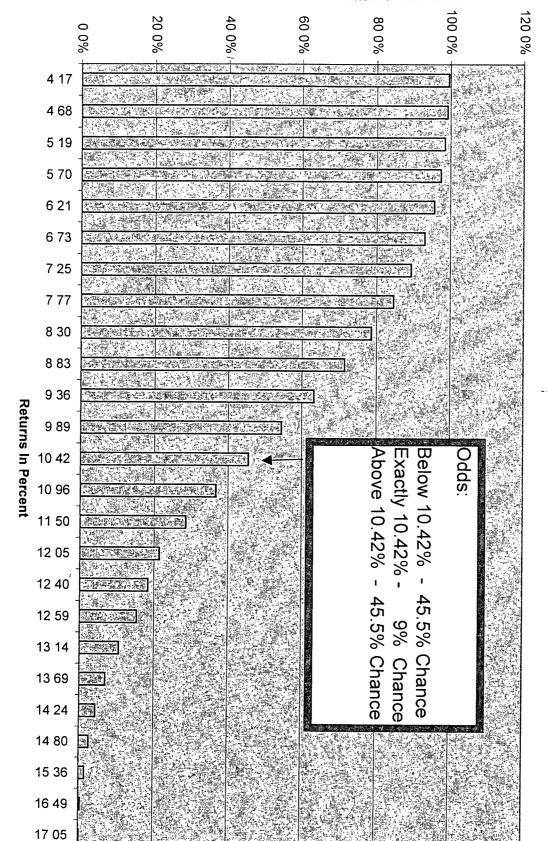
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THE PROBABILITY DISTRIBUTION FOR IBBOTSON'S RETURNS TO LARGE COMPANY STOCKS:

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Direct Testimony
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Page 1 of 1

	T	<u> </u>		T	
The Tab	l le Below Shows The Oc	 	f Ashiovana The	T A D-	tuf 40 400/
And The Pieces	d Arithmetic Average Re	turn of 12 429	/ From A \$1 la	rue Average Re	turn of 10 42%
Given An Equal 5	Probability of Gain Or Lo	50% Cha	Pec of Leans M	estment in 1925	In A Large Company
Given An Equal P	Tobability of Gain Of Et	JSS - JU 76 CHZ		oney and 50% C	nance to Gain
}			ODDS OF		
,	3		ACHIEVING A		
			RETURN	ODDS OF	
			EXACTLY	ACHIEVING A	ODDS OF
	ALL DOCCIDE		EQUAL TO	RETURN LESS	
NUMBED OF	ALL POSSIBLE	ALL	THE RETURN	· —	RETURN MORE
NUMBER OF POSSIBILITIES	VALUES OF	POSSIBLE	IN COLUMN	RETURN IN	THAN THE RETURN
POSSIBILITIES	INVESTMENT	RETURNS	(3)	COLUMN (3)	IN COLUMN (3)
				,	
(1)	(2)	(3)	(4)	(5)	(6)
\.'.'	(2)	(0)	(4)	(3)	(0)
1 0E+0	\$0.00	-8 6%	0%	0%	100%
170 8E+18	\$11.3	3 2%	0%	0%	100%
348 1E+18	\$16.6	3 7%	0%	0%	100%
670 5E+18	\$24.2	4 2%	0%	0%	100%
1 2E+21	\$35 3	4 7%	0%	0%	99%
2.1E+21.	\$51.6	5 2%	1%	1%	98%
3 4E+21	\$75.4	5 7%	1%	2%	97%
5 3E+21	\$110.2	6 2%	2%	3%	96%
7 8E+21	\$160 9	6 7%	3%	4%	93%
10 9E+21	\$235 1	7 3%	4%	7%	89%
14 4E+21	\$343 4	7 8%	5%	11%	85%
18 1E+21	\$502	8 3%	6%	15%	79%
21 7E+21	\$733	8 8%	7%	21%	71%
24 6E+21	\$1,071	9 4%	8%	29%	63%
26 5E+21	\$1,564	9 9%	9%	37%	55%
	V ,,001	0 0 70	0 70	37 70	3376
Most	\$2,285	10 4%	9 0%	AE E0/	45 50/
Likely	Ψ2,200	10470	90%	45 5%	45 5%
26 5E+21	\$3,338	11 0%	00/	5504	
24 6E+21	\$4,876	11 5%	9%	55%	37%
21 7E+21	\$7,123	12 0%	8% 7%	63%	29%
	Φ1,123	12 070	170	71%	21%
Biased					
Average	¢0 242	13 40/	6.00	75.00	40.40.
Not In the	\$9,242	12 4%	6 6%	75 0%	18 4%
Middle			†	İ	ļ
18 1E+21	040.400	10.004	00/	700/	
18 1E+21 14 4E+21	\$10,405 \$15,200	12 6%	6%	79%	15%
10 9E+21	\$15,200 \$22,204	13 1%	5%	85%	11%
7 8E+21	\$32,436	13 7% 14 2%	4%	89%	7%
5 3E+21	\$47,383	14 2%	3% 2%	93%	4%
3 4E+21	\$69,218	15 4%	1%	96%	3%
2 1E+21	\$101,115	15 9%	1%	97%	2%
76 1E+3	\$1,924,571,261	31 5%	0%	98%	1%
3 0E+3	\$2,811,453,491	32 2%	0%	100%	0%
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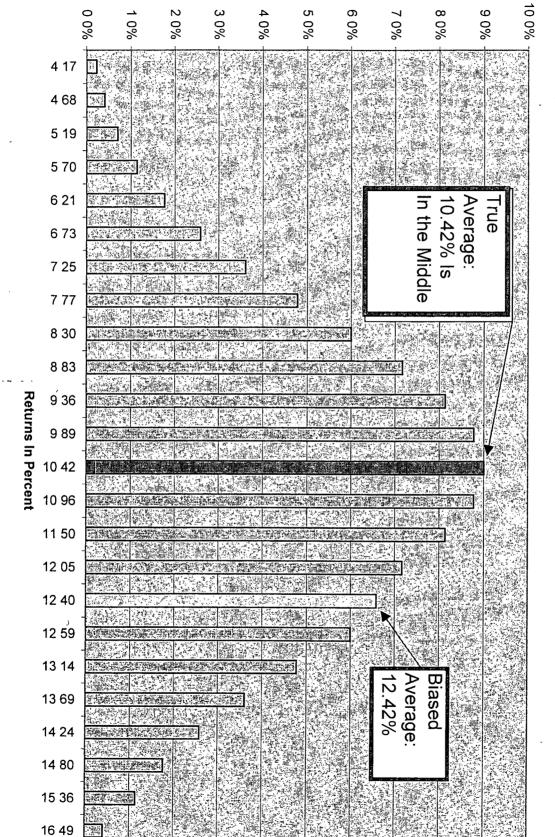
Odds That A Large Company Has Achieved A Return Greater Than The Return At The Bottom Of This Chart



THE CUMULATIVE PROBABILITY DISTRIBUTION FOR IBBOTSON'S RETURNS TO LARGE COMPANY STOCKS

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Exhibit CAPD-SB____
Direct Testimony___
Chart 1 of 2____

Odds That A Large Company Has Achieved A Return Exactly Equal To The Return At The Bottom Of This Chart



THE PROBABILITY DISTRIBUTION FOR IBBOTSON'S RETURNS

TO LARGE COMPANY STOCKS

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Direct Testimony
Chart 2 of 2

Column (5) - From Table B-9 Column (6) - From Table A-14

*Source Ibbotson Associates 2004 Yearbook
Column (2) - From Table B-9 Column (5)
Column (3) - From Table A-14 Column (6)

Average Return	3 80%	3 75%	-	Actual Return		
			٠			
			300000000000000000000000000000000000000	3 53%	1 76000	1964
1 02%	17 65900	2003		3 16%	1 70000	1963
1 65%	17 48000	2002		2 74%	1 64800	1962
3 83%	17 19700	2001		. 210%	1 60400	1961
5 89%		2000	SS	2 68%	1 57100	1960
4 68%	15 64 100	1999		2 96%	1 53000	1959
4 86%	14 94200	1998	٦:	1 50%	1 48600	1958
5 26%	14 25000	1997			1 46400	1957
5 21%	13 53800	1996	A		1 41900	1956
5 60%	12 86800	1995	Н \$	1 54%	1 38500	1955
3 91%	12 18600	1994		0 89%	1 36400	1954
2 90%	11 72800	1993	В	1 81%	1 35200	1953
351%	11 39800	1992		1 68%	1 32800	1952
5 59%	11 01200	1991	SΑ	1 48%	1 30600	951
7 82%	10 42900	1990	3	1 18%	1 28700	1950
8 37%	9 67300	1989	VE 2	1 11%	1 27200	1949
6 35%	8 92600	1988	.O.	0 80%	1 25800	1948
5 47%	8 39300	1987	IH.	0 48%	1 24800	1947
6 16%	7 95800	1986			1 24200	1946
7 72%	7 49600	1985	.∢.	0 32%	1 23700	1945
9 85%	6 95900	1984		0 33%	1 23300	1944
8 81%	6 33500	1983		0 33%	1 22900	1943
10 54%	5 82200	1982		0 25%	1 22500	1942
14 70%	5 26700	1981		0 08%	1 22200	1941
11 24%	4 59200	1980		0 00%	1 22100	1940
10 37%	4 12800	1979	-	0 00%	1 22100	1939
7 19%	3 74000	1978		0 00%	1 22100	1938
5 12%	3 48900	1977		0 33%	1 22100	1937
5 06%	3 31900	1976		0 16%	1 21700	1936
5 79%	3 15900	1975			1 21500	1935
8 03%	2 98600	1974		0 17%	1 21300	1934
6 92%	2 76400	1973		0 33%	1 21100	933
3 82%	2 58500	1972	-	0 92%	1 20700	932
4 40%	2 49000	1971		1 10%	1 19600	931
6 52%	2 38500	1970	_		1 18300	930
6 57%	2 23900	1969	_		1 15500	979
5 21%	2 10100	1968		3 57%	1 10300	22
4 23%	1 99700	1967		3 10%	1 06500	929
4 7604	1 01600	1000		3 308	1 00000	9 6
3 92%	1 82900	1965			1 00000	200
(6)	(5)	(4)	-	(3)	(2)	3
Index	For Year	YEAR		Index	For Year	EAR
Return	Index			Return	Index	
Total	Return			Total	Return	
T-Bill	Total			T-B _{ill}	Total	
Change In	T.Ball			Channe In	T.8.II	
Percentage			-	Dercentage		
Year-To-Year			•	Year-To-Year		

Debt_Instruments

Schedule 24	Direct Testimony	Exhibit CAPD-SB	Docket No 04-00288

								3.	*Source lbbc			US Treasury Bills	.	Intermediate Term Government Bonds		Long-Term Government Bonds		Long-Term Corporate Bonds		Index Type			Returns c	
									lbbotson Associates 2004 Yearbook Page 33					nent Bonds		onds		ds					Returns of Debt Instruments 1926-2003	
									earbook Page			3 70%		5 40%		5 40%		5 90%		Actual			ts 1926-20	
									33			3 80%		5 50%		5 80%		6 20%		Biased Average			103	
	Yearbook	2004	Associates	Ibbotson	Source:	, 2003	1 2002	2001	2000	1999	1998	1997	1996	1995	. 1994	1993	1992	1991	-	Year	-		Recent History Of	
Į,	Page 285					86 824	82 480	70 900	64 077	56 772	61 339	55 380	49 031	48 353	38 012	40 336	35 637	32 577		Return Index	Corporate		ry Of Long	
						5 07%	16 19%	10 45%	13 00%	-7 62%	10 53%	12 93%	0 84%	27 36%	-6 08%	12 92%	9 39%			LOSS From Prior Year	_	Long-Term	Term Indic	
	Page 287					60 654	59 699	50 662	48 856	40 128	44 178	39 074	33 727	34 044	25 856	28 034	23 709	21 942		Bonds Lotal Return Index	Government	-	es Show Loss Treasury Bills	
			•			1 30%	17 77%	3 25%	21 99%	-9 45%	12 66%	15 91%	-1 87%	31 99%	-8 41%	17 90%	8 05%			GAIN or LOSS From Prior Year	Bonds-	Long-Term	osses - Co Bills	
200	Page 289					60 469	59 064	52 291	48 589	43 155	43 933	39 864	36 782	36 025	30 843	32 516	29 230	27 700		Bonds Total Return Index	e lerm Government	Intermediat	Long Term Indices Show Losses - Contrast To No Losses On U.S. Treasury Bills	
						2 16%	12 81%	7 36%	12 64%	-2 00%	10 00%	8 33%	1 63%	16 98%	-5 49%	11 05%	5 52%			GAIN or LOSS From Prior Year	Government Bonds	Intermediat e Term	lo Losses	

Water Companies Use Low Rates To Implement The Risk-Free Rate

	Courses	יו טנטכא-נ	Nan Tee Nates III Stock-based Collipensation Plans	IIION Flans
ARTNA	1 30	2 10	3 16	Water Companies Use The Black-Scholes Option Pricing Model To Place a Value On Stock Options,
AWR	3 10	4 30	4 86	Where The Risk-Free Rate Approximates The 30-Day And 90-Day Rates On US Treasury Bills
BIW	4 40	4 50	5 00	
CTWS	2 79	3 00	л О 7	
CMCO	227	٠ ١	0	estimated on the date of grantusing the Black Scholes.
CWT	3 10		4 86	pricing model with the following weighted average assumptions used for grants in 2003 2002 and 2001. Formations used for brink are noted for the following weighted average assumptions used for the following weighted average assumptions used for the following weighted average assumptions used for the following weighted average assumptions used for the following weighted average assumptions used for the following weighted average assumptions used for the following weighted average assumptions used for the following weighted average assumptions used for the following weighted average assumptions used for the following weighted average assumptions used for the following weighted average assumptions used for the following weighted average assumptions used for the following weighted average assumptions are supplied to the following weighted average assumptions are supplied to the following weighted average as a supplied to the follow
MSEX	N A	Š	N	2003 2007 2001
PNNW	N A	NA	NA	18% 18% 18% 17%
WIS	2 86	NA	AN	Source SOUTHWEST WATER SEC 10 K:Filed 2004 03 15 Page 66
SWWC	2 70	4 60	4 70	
WTR	3 70	4 90	5 00	
YORW	N A	N N	N A	
•	2	2 7 5		

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STABLE SINCE LAST RATE CASE	LONG TERM INTEREST ENVIRONMENT

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· ,		
Recent Federal Reserve Boa	Recent Federal Reserve Board Data Available At FRR's Web Site	Ď N
Rate	Rate	
Rate of interest in money and capital markets	Rate of interest in money and camarkets	capital
Moody's investor service	Moody's investor service	
Long-term or capital market	Long-term or capital market	
Private, all industries	Private, all industries	
Aaa rating	Baa rating	
Not seasonally adjusted	Not seasonally adjusted	
Business (Five days, Monday-Friday)	Business (Five days, Monday-Fr	day)
AVERAGE YIELD TO MATURITY ON	AVERAGE YIELD TO MATURIT	Q.
SELECTED LONG-TERM BONDS	SELECTED LONG-TERM BONDS	(O)
Released on 11/22/2004	Released on 11/22/2004	•
aaa [Highest Investment Grade Corporate Bond]	baa [Low Investment Gade Corp	rporate Bond]
ת ה ט		
03/30/2004 541 - COUNTIE CHAILGE III	03/30/2003 6 65	

03/30/2004 5 41

11/12/2004 5 53

Long Term Rates Since

				T	T	Order Of	1			T			
			ĺ			Bonds As				1 1			
Order Of Bonds	_		ĺ			Listed in	İ			1		Bond As	ĺ
As Listed in				i	-	RWE				1		% Of	Weighted
RWE 2003	Carrying			i		2003	Carrying			1 1		Total Debt	
Annual Report	Amount In]	Maturity		Annual	Amount In		Maturity	Maturity		Maturing	Rate of
Page 153	Euros	Interest Rate	Maturity Year	Month		Report	Euros	Interest Rate	Year	Month		after 2005	
1	150	Not Provided	2004	1	1	1	150	Not Provided	2004	1		aiter 2005	Build
2	550	Not Provided	2004	5	1	23	121	6 375	2004	2		 	
3	600	Not Provided	2005	5	1	2	550	Not Provided	2004	5			
4	350	Not Provided	2005	6		24	494	4 625	2004	10			
5	141	5 500	2005	12	1	3	600	Not Provided	2005	5			
6	150	4 750	2007	1		4	350	Not Provided	2005	6			
7	740	5 750	2033	2		5	141	5 500	2005	12		0.8%	0.0400
8	319	2 000	2008	12	1.	16	498	5 750	2006	4		3 0%	0 046%
9	2,487	5 500	2007	10	Т	25	193	8 375	2006	8		1 2%	0 171%
10	1,993	5 375	2008	4		6	150	4 750	2007	1		0 9%	0 097%
11	2,265	6 125	2012	10		9	2487	5 500	2007	10		14 9%	0 043%
12	1,191	5 125	2018	7		10	1993	5 375	2008	4			0 819%
13	1,057	6 375	2013	6		8	319	2 000	2008	12		11 9%	0 641%
14	855	6 250	2016	4		18	709	4 625	2010	8			0 038%
15	923	4 625	2021	4	T	11	2265	6 125	2010	10		4 2%	0 196%
16	498	5 750	2006	4		13	1057	6 375	2012	6		13 6%	0 831%
17	1,341	6 250	2030	6		14	855	6 250	2016	4		6 3%	0 403%
- 18	709	- 4625	2010	8		12	1191	5 125	2018	7		5 1%	0 320%
19	847	5 625	2023	12	\vdash	15	923	4 625	2021	4	-	7 1%	0 366%
20	258	3 375	2021	7		20	258	3 375	2021	7		5 5%	0 256%
21	468	6 750	2028	11	\vdash	19	847	5 625	2023			1 5%	0 052%
22	284	6 500	2032	2	-	26	122	7 800	2023	12		5 1%	0 285%
23	121	6 375	2004	2		21	468	6 750	2028	9		0 7%	0 057%
24	494	4 625	2004	10	-	17	1341	6 250		11		2 8%	0 189%
25	193	8 375	2006	8	-	22	284	6 500	2030	6		8 0%	0 502%
26	122	7 800	2026	9	-	7	740	5 750		2		17%	0 111%
27		Not Provided	2004 to 2038	12		'		3 7 30	2033	2		4 4%	0 255%
			200110 2000										
						Total Debt	l.		•	1	- 1	1	
		1			ļ	Maturing							
	1				į	After 2005			Weigi	nted Interest R	ate	- 1	
	1				Ì	With A			On Bo	onds Maturing		1	
					ı	Known	- 1		After	2005 And With	a -		
1	i	i		j		Interest			Know	n Interest Rate	,	1	
Total Bond Debt	22,255		1			Rate	16700				-1		E 6700/
							.5,00						<u>5 679%</u>
	,			}		Total Debt	1	ļ	1]			
	,		ł		- 1	Maturing	1			ļ			
,	-	İ			ł	J		i					
}		J			- 1	2006 -	1	İ		1			
		į			ı	2038 With		ł		1		1	
			1	- 1		An				1			
		1				Unknown	į			1		1	
1		ľ		1		Interest			į	1	ı	1	ì
						Rate	3149			1			

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The following is a breakdown of our major bonds as of December 31, 2003

Issuer	Issue volume	Carrying amount	Coupon in %	Maturity
RWE AG	· ``€150 millión	€150 million	Variable	Januarý 2004
RWE AG1	€550 million	£550 million.	Variable	May 2004
RWE AG	€600 million	€600 million	Variable	May 2005
RWE AG	• €350 million	€350 million ^e	- 🚎 🗥 Variable	June 2005
RWE AG 😘 💢	್ಷೆ 📝 £100 million	• • €141 million	- 1 1 1 1 1 5 5 5 T	December 2005
RWE AG	 €150 million 	€150 million	4 75	January 2007
RWE AG ' · · ·	€750 million	. º €740 million	ें ्र रें	February 2033
RWE Finance B V	CHF 500 million	€319 million	2.0	December 2008
-RWE Finance B V	€2,500 million	€2,487 million	⁷ 5"5 أ	October 2007
RWE Finance B V	€2,000 million	€1,993 million	5 375.	/=" April-2008"
- RWE Finance B V ,	.€2,200 million	- €2,265 million	, 6 125	October 2012
RWE Finance B V .	" €1,200 million	. `€1,191 million`	5 125	July 2018
RWE Finance B V	£750 million	€1,057 million	6 375	June 2013
·RWE Finance B V	. €850 million	€855 million	· 6 25	. Aprıl 2016
RWE Finance B-V	- °£650 million	, €923 million	65	, Aprıl 2021
RWE Finance B V	£350 million	~ €498 million	. 5 75	-April 2006
RWE Finance B V	£950 million	€1,341 million	6 25	June 2030
RWE Finance B V	£500 million	€709 million	4 625	- August 2010
RWE Finance B V	£600 million	- €847 million	5 625	December 2023
Thames, Water A GUtilities Finance Plc	£175 milhon	€258 million	3 375	July 2021
Thames Water Utilities Finance Plc	£330 million	,€468 million	6 75	November 2028
Thames Water Utilities Finance Plc	£200 million	€284 million	65	February 2032
"Thames Water "Finance B V 💸 🕞	US\$ 150 million	€121 million	\$ 6 375	February 2004
RWE Innogy plc	` - €500 million	€494 million	44 625	October 2004
RWE Innogy plc	£131 million	€193 million	8 375	August 2006
Pennsylvania – American Water				
Company Other	US\$150 million	€122 million	7.0 25 5 5 7 8	September 2026
(incl other notes)	Various	€3,149 million	Various	2004 until 2038
Bonds (incl. other notes payable)		€22,255 million		

	Risk Premium Su	Risk Premium Suggested Rate Of Return				
					_	_
			Market		Minimum	Maximum
			Risk	Company	Company	Company
	Debt	Beta	Premium =	Risk	Equity	Equity
	_	Average Jan2004			·	
	Yield Range	Mar2004	10 40% - 3 75%	Premium	Cost	Cost
Company (Stock Exchange SYMBOL)	(a)	(b)	(c)	(d)=(b)X(c)	(e)=5 7% + (d)	(e)=6 2% + (d)
Artesian Resources (NASDAQ ARTNA)	57% - 62%	0 192	6 65%	1 28%	6 98%	7 48%
AMERICAN STATES WATER CO (NYSE AWR)	5 7% - 6 2%	0 095	6 65%	0 63%	6 33%	6 83%
Birmingham Utilities (AMEX BIW)	5 7% - 6 2%	0.017	6 65%	0 11%	5 81%	6 3 1%
Connecticut Water Service, Inc. (NASDAQ CTWS)	5 7% - 6 2%	0 164	6 65%	1 09%	6 79%	7 29%
Consolidated Water Co Ltd (NASDAQ CWCO)	57%-62%	0 233	6 65%	1 55%	7 25%	7 75%
California Water Svc (NYSE CWT)	5 7% - 6 2%	-0 157	6 65%	-1 04%	4 66%	5 16%
Middlesex Water Company (NASDAQ MSEX)	57% - 62%	0 280	6 65%	1 86%	7 56%	8 06%
Pennichuck Corporation (NASDAQ PNNW)	57%-62%	-0 034	6 65%	-0 23%	5 47%	5 97%
S J W Cp (AMEX SJW)	57%-62%	0 639	6 65%	4 25%	9 95%	10 45%
Southwest Water Company (NASDAQ SWWC)	57%-62%	-0 049	6 65%	-0 32%	5 38%	5 88%
Aqua America (NYSE WTR) - formerly Phila Suburban (NYSE PSC)	57%-62%	-0 292	6 65%	-1 94%	3 76%	4 26%
York Water Company (NASDAQ YORW)	57%-62%	0 039	6 65%	0 26%	5 96%	6 46%
Av of Comparable Cos	5 7% - 6 2%	0 091	6 65%	061%	631%	6.81%

0 28 -0 15 0 28 -0 07 0 47 0 12 -0 21
LYCOS Betas 0 21 -0 13 0 08 -0 1
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RISK PREMIUM ANALYSIS COMPARABLE WATER COMPANIES REGRESSED AGAINST S&P 500	COMPARABLE	NATER CC	MPANIES	REGRESSE	D AGAINS	T S&P 500							
		1											
BETA FOR 60 MONTH PERIOD ENDING	AMERICAN Antesian ATATES WATER CO WATER CO WATER CO WATER CO WATER CO WATER CO WATER CO WATER CO WATER CO (NASDAQ ARTNA) (NASDAQ ARTNA) (NASDAQ ARTNA) (NASDAQ ARTNA)	AMERICAN STATES WATER CO (NYSE AWR)	Birmingham Utilities (AMEX BIW)	ecticut er Service,	Consolidated Water Co Ltd (NASDAQ C	IJ	Middlesex Water Company (NASDAQ M	Pennichuck Southwest Corporation Company M (NASDAQ PNI S J W Cp (NASDAQ NW) (AMEX SJW) WWC)	S J W Cp (AMEX SJW)	ſΩ	Aqua Amenca (NYSE WTR) - formerly	York Water Company (NASDAQ YO,	Average For Group
2004/1	0 22	0 08	0 00	0 16	0.22	-0 15	0	0 03	0 80		200		
2004/2	0 19	0 08	0 03	0 16	021	-0 16	0 28	-004	061	9 9	-0.30	2 2	200
2004/3	0 17	0 12	0 01	0 18	0 26	-0 16	0 25	-0 05	071	- မ	-0 32	000	0 10
Average By Company	0 19	0 09	0 02	0 16	0 23	-0 16	0 28	-0 03	0 64	-b 05	-0 29	0 04	

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2004/3	2004/2	2004/1	T- STATISTI C FOR BETA	RISK PREMIUM ANALYSIS COMPARABLE WATER COMPANIES REGRESSED AGAINST S&P 500
				ANA MUIL
0 92	1 05	1 17	Artesian Resources (NASDAQ AR TNA)	YSIS CON
0 51	0 32	0 34	Artesian AMERICAN Resources STATES Birmingham (NASDAQ AR WATER CO Utilities TNA) (NYSE AWR) (AMEX BIW)	MPARABLE
0 06	0 14	0 02	ham BIW)	WATER C
0 76	0 68	0 70	Connecticut Consolidated Water Water Co Service, Inc Ltd (NASDAQ CT (NASDAQ C WS)	OMPANIE
1 27	1 04	1 09		S REGRES
-0 94	-0 97	-0 90	California Com Water Svc (NA: (NYSE CWT) EX)	SED AGAI
1 12	1 25	1 34	Middlesex Water Pennichuck Company Corporation (NASDAQ MS (NASDAQ PN S J W Cp (NASDAQ MS (NASDAQ S) EX) NVV) Southwest Water Company (Company (NASDAQ NS J W Cp (NASDAQ S) (NASDAQ S) (AMEX SJW) (WWC)	NST S&P 5
-0 20	-0 16	-0 09	Pennichuck Corporation (NASDAQ PN	000
1 65	3 61	3 75	S J W CP	
-0 11	-0 22	-0 21	Southwest Water Company (NASDAQ S	
-1 45	-1 37	-1 17	Aqua America (NYSE WTR) - formerly Phila Suburban (NYSE PSC)	
0 12	0 12	0 13	Aqua America (NYSE WTR) - formerly Phila S Suburban (NYSE PSC) (NYSE PSC) RW)	

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RISK PREMI INTERCE PT VALUE FOR FOR	RISK PREMIUM ANALYSIS COMPARABLE WATER COMPANIES REGRESSED AGAINST S&P 500 INTERCE PT VALUE FOR FOR FOR REGRESS	MPARABLE	WATER	COMPANIE	SREGRES	SSED AGAI	NST S&P 5	000			Aqua	. ,
SION EQUATIO	Artesian Resources (NASDAQ AR	Ardesian AMERICAN Resources STATES Birmingham (NASDAQ AR WATER CO Utilities TNA) (NYSE AWR) (AMEX BIW)	-	Connecticut Consolidated Water Co Service, Inc Ltd (NASDAQ CT (NASDAQ C WS) WCO)		California Water Svc (NYSE CWT)	Water Pennichuck Company Corporation (NASDAQ MS (NASDAQ PN S J W Cp EX) NW) (AMEX SJ	Pennichuck Corporation (NASDAQ PN NW)	12	Any est	Southwest (NYSE WTR) Water - formerly York Water Company Phila Company (NASDAQ S Suburban (NASDAQ YO) WWC) (NYSE PSC) RW)	York Water Company (NASDAQ YO RW)
2004/1	0 01	0 00	0 00	0 00	0 02	0 00	0 00	0 00	0 01	0 00	0 00	0 00
2004/2	0 01	0 00	000	0 00	0 02	0 00	0 00	0 01	0 01	0 00	0 00	000
2004/3	001	0 00	0 00	0 00	0 02	0 00	_0 00	0 01	-0 01	00 0	0 00	000

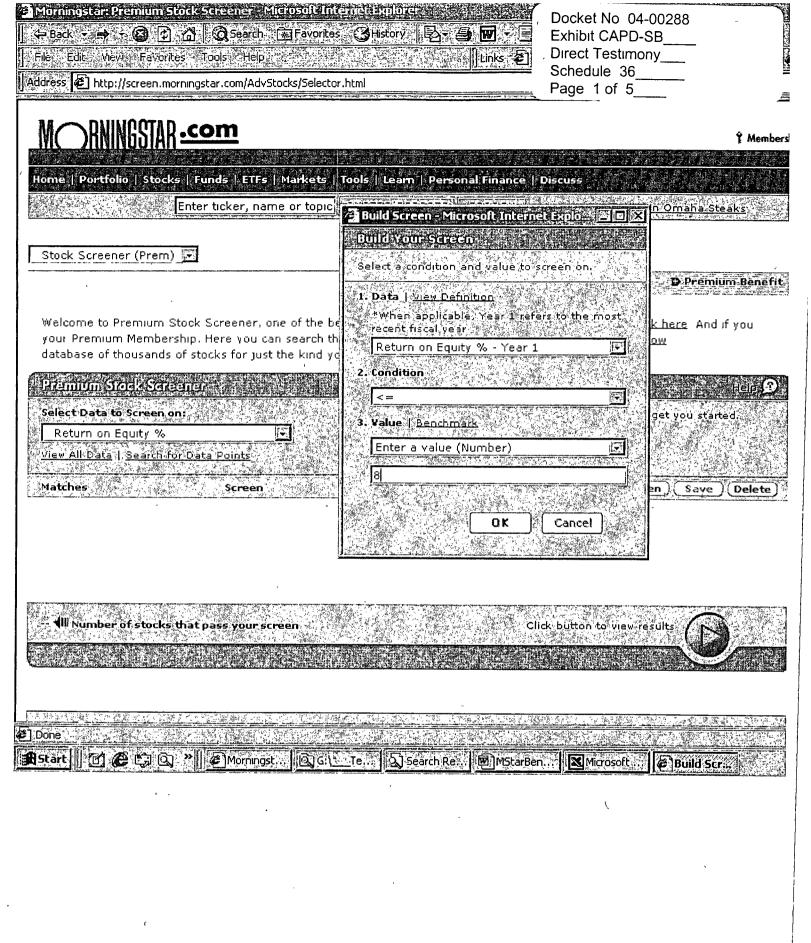
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0 03 -0 42	-0 18 -0 23	-0 14 -0 13	Artesian AMERICAN Wate Resources STATES Birmingham Serv (NASDAQ AR WATER CO Utilities (NASTNA) (NYSE AWR) (AMEX BIW) WS)	RISK PREMIUM ANALYSIS COMPARABLE WATER COMPANIES REGRESSED AGAINST S&P 500
2 029	3 024	3 014	necticut er ice, Inc	R COMPANIES
1 78	1 67	161		REGRES
0 25	0 35	0 14	Midd Water Svc (NYSE CWT) EX)	SED AGAII
-0 20	-0 08	-0 16	llesex er npany SDAQ MS	NST S&P 5
0 48	0.51	0 43	PZ	00
-0 42	1 35	1 05	Southw Ck Water Compan PN S J W Cp (NASD) (AMEX SJW) WWC)	
-0 02	0 03	-0 13	l Q d es	
-0 09	0 02	-0 22	Aqua America (NYSE WTR) - formerly Phila Suburban (NYSE PSC)	
0 12	0 07	0 02	Aqua America (NYSE WTR) - formerly Phila S Suburban (NASDAQ YO (NYSE PSC) RW)	

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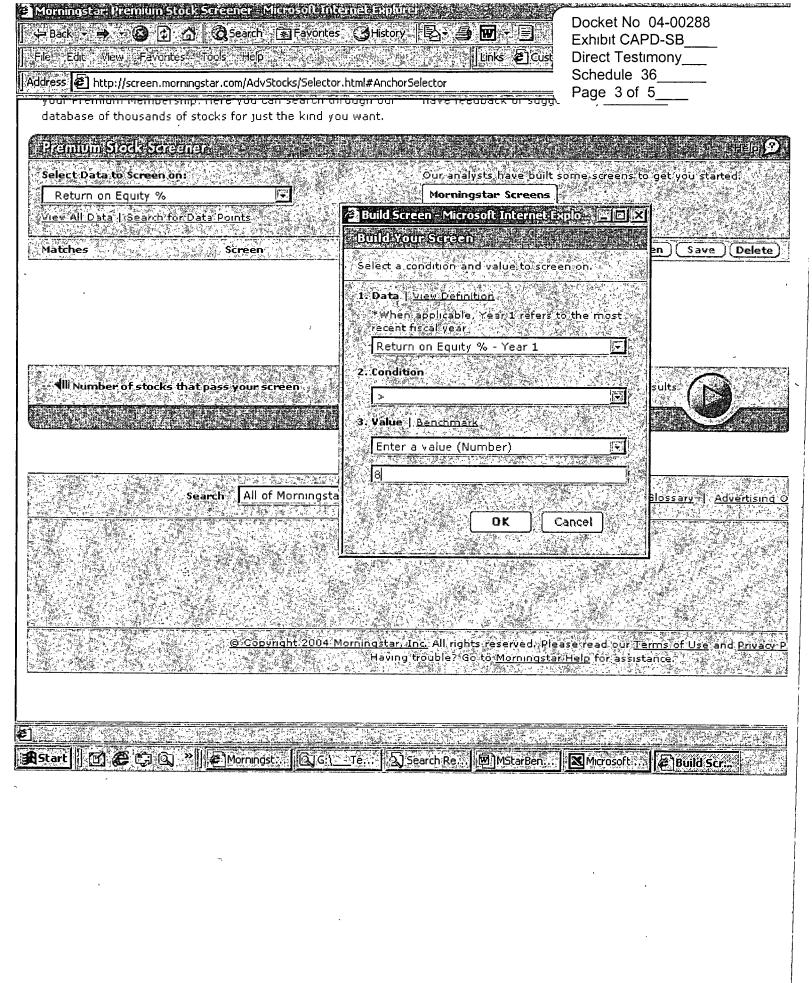
	2004/3	2/4/02	2004/1	R- SQUARE FOR REGRES SION EQUATIO N	RISK PREMIUM ANALYSIS COMPARABLE WATER COMPANIES REGRESSED AGAINST S&P 500
				13 R A	IIUM ANAL
	0 12	0 14	0 15	Artesian Resources (NASDAQ AR TNA)	YSIS CO
	0 07	0 04	0 04	Artesian AMERICAN Resources STATES Birmingham (NASDAQ AR WATER CO Utilities TNA) (NYSE AWR) (AMEX BIW)	MPARABL
	0 01	0 02	0 00	Birmingham Utilities (AMEX BIW)	E WATER
	0 10	0 09	0 09	Connecticut Water Service, Inc (NASDAQ CT WS)	COMPANII
	0 16	0 14	0 14	Connecticut Consolidated Water Co Water Inc Ltd (NASDAQ C WCO)	S REGRE
1	0 12	0 13	0 12	California Water Svc (NYSE CWT)	SSED AGA
1	0 14	0.16	0 17	Middlesex Water Company (NASDAQ MS (NASDAQ PN S J W CP (NASDAQ S NW)) (NASDAQ S NW) (NASDAQ S NW) (NASDAQ S J W CP (NASDAQ S NW)) (NASDAQ S NW) (NASDAQ S J W CP (NASDAQ S NW)) (NASDAQ S NW) (NASDAQ S NW) (NASDAQ S NW) (NASDAQ S NW) (NASDAQ S NW) (NASDAQ S NW) (NASDAQ S NW)	INST S&P
000	0 02	0 00	0.01	Pennichuck Corporation (NASDAQ PN	500
17.0	100	0 43	0 44	S J W CP	
0 01	003	000	0 03	Southwest Water Company (NASDAQ S	
0 19	81.0	0 0	0	Aqua Amenca (NYSE WTR) - formerly Phila Suburban (NYSE PSC)	
0 02	0 02	20.0		Aqua Amenca (NVSE WTR) - formerly	

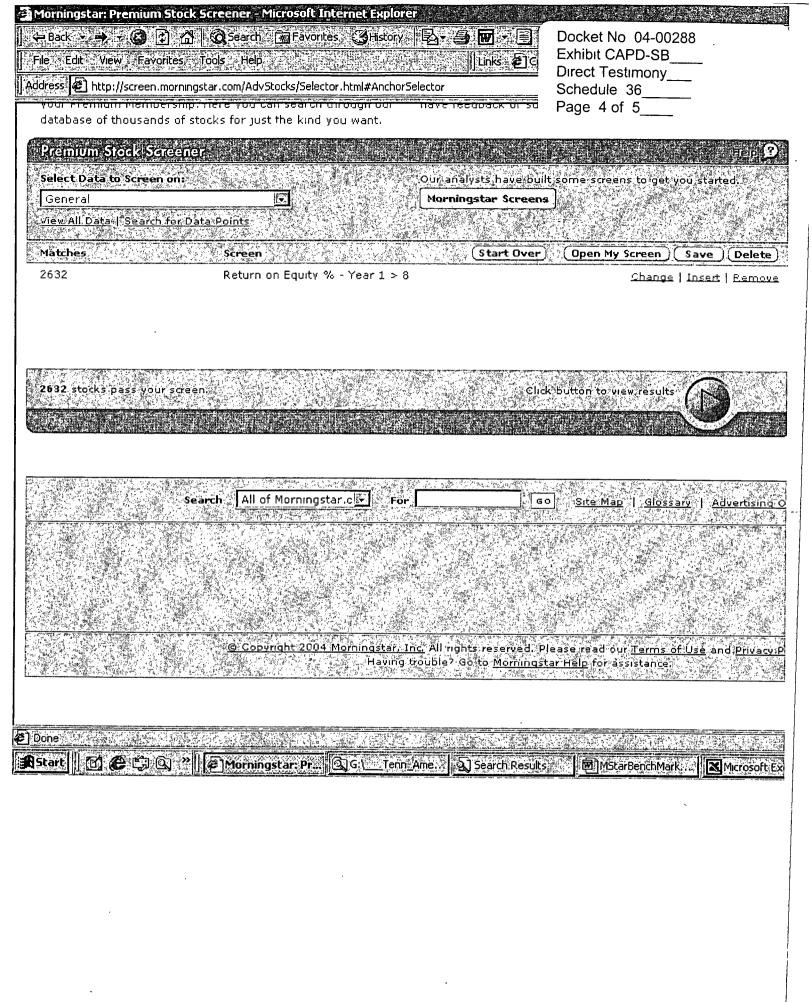
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			Our analysts have b	Docket No. 04-00288 Exhibit CAPD-SB Direct Testimony	- "
General View All Data Search for			Morningstar Scree	Page 2 of 5	ve) (Delete)
2558	Return on Equity	% - Year 1 <= 8	3343333		sert Remove
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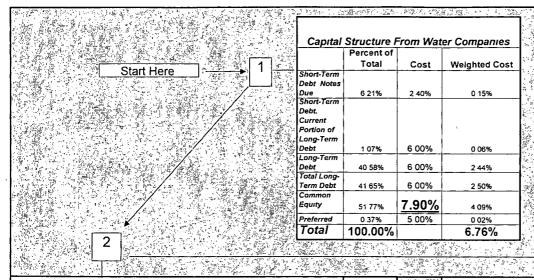




Return on Equity % (Stocks) ..

This is the percentage a company earns on its total equity given year (Year 1, 2, etc.). The calculation is net income divided by end-of-year net worth. The resulting figure is multiplied by 100. Return on equity shows how much profit a company generates on the money shareholders have invested in the firm. The mission of any company is to earn a high return on equity. The company's net income is found in the annual income statement. The company's net worth is taken from the company's annual balance sheet. For example; in fiscal 1997, Merck earned an incredible 37% on its shareholders' equity. For every \$1 shareholders had invested in the company, Merck produced \$0.37 worth of profit.

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Tennessee-Ame	rıcan Ca	ıpital Strı	ucture As F	Filed By The (: Company	Double Leverage Information
Class of Capital	Amount in Millions	Percent of Total	Cost Rate	Weighted cost	Nominal Rate On LTD with UnAmortize d Exp	Capital Source
Short-Term Debt	4 70	5 34%	2 40%	0 13%	 	RWE
Long-Term Debt						
	1 16	1 32%	9 50%	0 13%	9 49%	Not RWE
	2 47	2 81%	9 36%	0 26%	9 25%	Not RWE
	5 65	6 42%	7 91%	0 51%	7 84%	Not RWE
	6 48	7 36%	6 52%	0 48%	6 50%	Not RWE
	5 07	5 76%	6 91%	0 40%	6 87%	RWE
	190	21 58%	4 75%	1 02%		RWE
	3 20	3 63%	6 76%	0 25%		RWE
Total Long-Term Debt	43 03	48 87%		3 04%	l	
Common Equity						L
Соттоп	18 54	21 06%	10 7%	2 25%		RWE
Retained Earnings	20 38	23 15%	10 7%	2 48%		RWE
Total Common Equity	38 92	44 20%	10 7%	4 73%		RWE
Preferred	1 40	1 59%	5 0%	0 08%		RWE
Total Capital	88 05	100 0%		8 0%		

Tennessee-Am Leverage Of RV					Earnings	Double Leverage Information
Class of Capital	Amount in Millions	Percent of Total	Cost Rate	Weighted cost	Nominal Rate On LTD with UnAmortize d Exp	Capital Source
External Funding	1 16	1 34%	9 50%	0 13%	9 49%	Not RWE
External Funding	2 47	2 85%	9 36%	0 27%	9 25%	Not RWE
External Funding	5 65	6 51%	7 91%	0 52%	7 84%	Not RWE
External Funding	6 48	7 47%	6 52%	0 49%	6 50%	Not RWE
Total External Funding Capital Supplied By	15 76	18 16%		1 4%		
Parent.				1		RWE
Common	18 54	21 37%	10 70%	2 29%		RWE
Retained Earnings	19 10	22 01%	10 70%	2 36%		RWE
Internal Funding	4 70	5 42%	2 40%	0 13%		RWE
nternal Funding	5 07	5 84%	6 91%	0 40%	6 87%	RWE
nternal Funding	19 00	21 90%	4 75%	1 04%		RWE
nternal Funding	3 20	3 69%	6 76%	0 25%		RWE
nternal Funding	1 40	1 61%	5 00%	0 08%		RWE
Total Internal Funding	71 01	81 84%		6 5%		RWE
Total Capital	86 77	100%		7 9%		

10	Tennessee-Ame		al Structure Re erage Of RWE	Classified F	or Double	Double Leverage Information
10 10 10 10 X 10 X 10 X 10 X 10 X 10 X	Class of Capital	Amount in Millions	Percent of Total	Cost Rate	Weighted cost	Capital Source
3						
į.	External Funding	1 16	1 32%	9 50%	0 13%	Not RWE
	External Funding	2 47	2 81%	9 36%	0 26%	Not RWE
,	External Funding	5 65	6 42%	7 91%	0.51%	Not RWE
ì	External Funding	6 48	7 36%	6 52%	0 48%	Not RWE
ķ	Total External	· .			1	
Ċ	Funding	15 76	_ 17 90%		1 4%	i i
C JAPA	Capital Supplied By Parent					
•	Common	18 54	21 06%	10 70%	2 25%	RWE
	Retained Earnings	20 38	23 15%	10 70%	2 48%	RWE
ć	Internal Funding	4 70	5 34%	2 40%	0 13%	
;	Internal Funding	5 07	5 76%	6 91%	0 40%	RWE
٠,	Internal Funding	19 00	21 58%	4 75%	1 02%	RWE
٠	Internal Funding	3 20	3 63%	6 76%	0 25%	RWE
ŝ	Internal Funding	1 40	1 59%	5 00%	0 08%	RWE
3	Total Internal					
5	Funding	72 29	82 10%		66%	RWE
3	Total Capital	88.05	100%		9.0%	

Tennessee-Ameri Leverage With CA					Double Leverage Information
Class of Capital	Amount in Millions	Percent of Total	Cost Rate	Weighted cost	Capital Source
External Funding	1 16	1 41%	9 50%	0 13%	Not RWE
External Funding	2 47	3 01%	9 36%	0 28%	Not RWE
External Funding	5 65	6 88%	7 91%	0 54%	Not RWE
External Funding	6 48	7 90%	6 52%	0 51%	Not RWE
Total External Funding Capital Supplied By	15 76	19 20%		1 48%	
Parent)				RWE
Short Term	0 00	0 00%	6 76%	0 00%	RWE
Common	18 54	22 59%	6 76%	1 53%	RWE
Retained Earnings	19 10	23 27%	6 76%	1 57%	RWE
internal Funding	5 07	6 18%	6 76%	0 42%	RWE
Internal Funding	19 00	23 15%	6 76%	1 56%	RWE
Internal Funding	3 20	3 90%	6 76%	0 26%	RWE
internal Funding	1 40	1 71%	6 76%	0 12%	RWE
Total Internal Funding	66 31	80 80%	6 76%	5 46%	RWE
Total Capital	82 07	100 0%		6 9%	

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Double-Leverage Return On Capital

Final Capital Structure

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			-,	
				Weighted
Parent:		Ratio	Cost	Cost
Common Equity		41.83%	7.90%	3.305%
Preferred Equity		0.30%	5.00%	0.015%
Short Term Debt		5.02%	2.40%	0.120%
Long Term Debt		33.65%	6.00%	2.019%
		80.80%	6.76%	5.459%
Tennessee American:				
Short Term Debt		0.0%	0.00%	0.00%
Long Term Debt		19.2%	7.71%	1.48%
		19.2%	7.71%	1.48%
	-		-	
		100.00%		6.94%

COST OF FIRE PROTECTION SHOULD BE ALLOCATED ON THE BASIS OF PROPERTY VALUES

TABLE III

2002 ESTUMATED CURRENT PROPERTY VALUE BY COUNTIES AND MUNICIPALITIES FOR CLASSES AND SUBCLASSES

SIGNAL WITH	RIDGESIDE	RED HANK	LOOKOUT MIN.	LAKESITE	EAST RIDGE	COLLEGEDALE	CHATTANOOGA)	COUNTIES AND MUNICIPALITIES	
31.543.025	0,900	106,597,625	4,580,225	16,856,863	246,754,155	120,437,113	4.697,894,225 3,851,279,520	INDUSTRIAL AND COMMERCIAL	REAL PROPER
514.433.000	24,102,000	304,481,620	250,456,100	93,236,400	502,032,080	166,387,000	10,787,025,800 (4,121,781,2)(0	RESIDENTIAL	REAL PROPERTY ESTIMATED VALUE**
41 300	0	10,1,500	0	98,300	52,300	617,800	63,690,760	EARM***	LUET
4.888.343	28,087	. 13,531,580	820,507	1,971,433	35,909,320	94,566,880	1 810, 166,233 (1 530,834,597)	INDUSTRIAL AND COMMERCIAL	PERSONAL PROPE
0	0	0	0	0	0	0	@ •	RESIDENTIAL AND FARM INTA	PERSONAL PROPERTY ESTIMATED VAL
0	0	0	0	9	0	0	(() 0	ANGIBLE	LUE
8.517.663	165,022	18,345,299	3,860,939	247,755	11,541,597	7,056,701	716,557,842 (572,791,716)	STATE ASSESSMENT /	PUBLIC UTILITY EST, VALUE
0	0	0	0	0	0	C:	(9) 0	LOCAL	EST. VALUE

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ESTIMATED PROPERTY VALUES BY CLASS

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	n	State Board of Equalization	State Box
		Report of Tennessee	Repor
		2002 Tax Aggregate	2002
,			SOURCE:
100.00%	10,033,156,173		Total Estimated Value
5.28%	529,257,816		i otal Ottle!
0 00%	0	Estimated Value	Uner Local Assessment
	-	Public Utility	
5.21%	522,791,716	Estimated Value	Other State Assessment
0.00%		Estillated value	Cite ilitarigible
	o .	Personal Property	Other Intercible
0 06%	6,466,100	Estimated Value	Other Farm
53.64%	5,382,114,117		I otal industrial and Commercial
15 26%	1,530,834,597	Estimated Value	Industrial and Commercial
38 39%	3,851,279,520	Real Property Estimated Value	Industrial and Commercial
41.08%	4,121,784,240		Total Residential
0 00%	0	Estimated Value	Residential And Farm
41 08%	4,121,784,240	Real Property Estimated Value	Residential
Percent	Amount	Property Class	Payers
ja	City Of Chattanoog	-lamilton County -	Estimated Property Value: Hamilton County - City Of Chattanooga
Po		N CHAI I ANOOGA	IN C

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ALLOCATION OF PUBLIC FIRE PROTECTION COST TO CUSTOMER CLASSES

ACCORDING TO CHATTANOOGA PROPERTY VALUES

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	* This assumes that the City of Chattanooga is not contributing to revenue in this class
100.00%	lotal
•	Private Fire Service Percent:
1.41%	Authority Andreadon Factor Fercent–3.20% A (Fublic Authority and Water Utility Revenue))
3.86%	
5.28%	I.
	Total Other Percent: Public Authority, Water Utility
13.77%	And Industrial Allocation Factor Percent=53.54% X (Commercial Revenue/(Sum of Commercial And Industrial Revenue))
39.88%	Commercial Allocation Factor Percent=53.64% X (Commercial Revenue/(Sum of Commercial And Industrial Revenue))
53.64%	Total Commercial And Industrial Allocation Percent:
41.08%	Total Residential Allocation Percent:
	Anocation to main's customer classes: